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Hugh Revell

A
TREATISE
ON THE
DISEASES of CHILDREN,
WITH
Directions
FOR
THE MANAGEMENT OF INFANTS
FROM
THE BIRTH.

BY MICHAEL UNDERWOOD, M. D.

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of the
Royal College of PHYSICIANS in LONDON;
PHYSICIAN
To Her Royal Highness the PRINCESS of WALES;
And late SENIOR PHYSICIAN
To The BRITISH LYING-IN HOSPITAL.

IN THREE VOLUMES.

VOL. I.

THE FIFTH EDITION, REVISED AND CORRECTED.

Ornari Res ipsa negat, contenta doceri. MANILL.

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TO THE
Q U E E N.

MADAM,

HIGHLY honoured in the Permission of laying this Work five times at your MAJESTY's Feet, it has been my Ambition to render each Impression, in some Degree worthy of so high a Patronage. The Advantages resulting from Time and Experience have been especially cultivated to render this Edition as complete as my other Employments, and my Abilities would allow. Should it ultimately afford that Benefit to my fellow

Creatures at [which I have been industriously aiming, the Public will be greatly indebted to your MAJESTY's kind Auspices. On this Account, as well as the Queen's known Goodness, there is no Person to whom the Work could with so much Propriety be addressed.

I have the Honour to be,
With the most grateful Obedience,
Your MAJESTY's
Most devoted,
And most obliged Servant;

Michael Underwood.

PREFACE.

THE repeated and indulgent reception of former attempts to investigate the Diseases of Children, has induced the author successively to extend his original plan. And he hopes he may have so far succeeded, as to present the readers of this fifth impression with an ample and distinct account of them.

Besides something new in the form of the work, it contains several diseases never noticed before, as well as further improvements in the arrangement and description of others; together with compleat *Directions for the Management of the Nursery*, to which is prefixed a Dissertation on the nature and properties of Human-milk, the result of repeated experiments; forming, it is presumed a suitable Introduction to that part of the work.

If any thing at all Important has been overlooked, it has arisen as well from the frequent occurrence of some new disease, as from a possible want of peculiar opportunities of information, which the writings or practice of others may, in some instances, possess. He has availed himself, however, of every advantage he could command; and is indebted to one or more friends for some valuable communications, which will be acknowledged in their place. He has at the same time endeavoured to avoid all unnecessary details and useless distinctions of diseases, as well as touching upon subjects foreign from the immediate design. Should the reader apprehend any little exceptions in this respect, he will readily perceive the inducement; and although the accuracy of system should somewhat be violated, it is presumed, it has only given way to motives of humanity and usefulness.

Perfectly sensible, however, of numerous defects, the writer relies again upon

the indulgence of the public, though he hopes that, as this edition will be found more compleat, it may be proportionably worthy of a continuance of that favourable reception wherewith the former ones have been so generally honoured. Particular acknowledgements, indeed, are due for the approbation of the faculty; and the like candour, it is hoped, will accept the alterations now first attempted to render the work appropriate to medical readers.

For the stile in general, indeed the author pretends to have but little to offer. Had he had more leisure, possibly it might have been less incorrect; though it is hoped, that many of the greater imperfections which appeared in former editions are here done away.

Prompted by a laudable ambition of being useful in his generation, and leaving behind him something beneficial to posterity in the only way he could attempt it, he is persuaded the benefit will not terminate here; but that others will be excited

to perfect this long neglected, but most important branch of the profession. It has, indeed, been universally lamented, that in no age has the study of the disorders of children kept pace with the advancement of science: nor have the improvements in the practice of physic in the present century, produced as full and accurate accounts of them, as of the diseases of adults. Indeed, till of later years little more has been attempted than getting rid of the wild prejudices, and anile prescriptions of the old writers, which had served only to obscure the true nature of children's diseases. In this attempt however, and particularly in meliorating the practice, some of the best of the more modern writers have run into a contrary extreme, in not a few instances.

A very principal cause of the above-mentioned neglect has arisen from an ancient idea, for a long time too generally entertained, that, as medical people can have but a very imperfect knowledge of

the complaints of infants, from the inability of children to give any account of them, it is safer to trust the management of them to old women and nurses; who at least are not likely to do mischief by violent remedies, though they may sometimes make use of improper and inadequate ones.

Futile as such objections most certainly are, they have, nevertheless, had considerable influence, and for a long time retarded a methodical investigation of infantile disorders. This defect has been noticed by successive writers, and particularly in a treatise written above thirty years since, by Dr. ARMSTRONG. It is aptly remarked by this writer, that the same difficulty occurs in a variety of the most dangerous complaints of adults at every period of life, which confessedly require the greatest assistance; such are attacks of phrenzy, delirium, and some kinds of convulsions: to which may be added, all the disorders of idiots and

lunatics. But these have been successfully treated in every age, not excepting even lunacy itself, and the melancholy subject happily restored to society, his family, and himself.

It has likewise been observed, that if infants for the reasons above-mentioned are to be excluded the benefit of a physician's advice, it is difficult to say at what age children may safely be entrusted to his care; since at the age of five or six years, they would frequently mislead the Inquirer, who should trust to their own account of their complaints. Their ideas of things are too indistinct to afford us sufficient information, and they accordingly often call sickness at the stomach, pain, and pain, sickness; they will frequently make no reply to general questions, and when they are asked more particularly whether they have any pain in one or another part of the body, they almost constantly answer in the affir-

mative; though it afterwards frequently turns out they were mistaken.

To this idea I will venture to add, that although infants can give no account of their complaints in the manner we receive information from adults, their diseases are all plainly and sufficiently marked by the countenance, the age, the manifest symptoms, and the faithful account given by the parent, or an intelligent nurse. This I am so confident of, that I never feel more at my ease, in prescribing for any disorders than those of infants, and never succeed with more uniformity, or more agreeably to the opinion I may have adopted of the seat and nature of the disease. Every distemper may be said, in some sense, to have a language of its own, and it is the business of a physician to be acquainted with it; nor do those of children speak less intelligibly than those of adults.*—Limited as is human knowledge

* In neither of these sentiments do I stand alone; HARRIS, of whose work SYDENHAM is thought to have spoken

in every department, there are yet certain principles and great outlines, as well in phyfic as in other fciences, with which men of experience are acquainted, that will generally lead them fafely between the dangerous extremes of doing too little, or too much; and will carry them fuccefsfully, where perfons who want thofe advantages cannot venture to follow them.*—How far however, this and other affertions of the author, are made out in the fubfequent tract, the writer muft submit to the judgment and candour of the public.

fo highly, has faid the fame things—“ Incertæ verò diagnofes (quæ multum obtinuit) querela non tam a fymptomatum defectu, quàm a præpofterâ ac ineptâ medendi ratione ortum fuum duxiffe videtur.” (page 8.) And at page 3.—Etenim afferere non verebor morbos illius ætatis generê pauciffimos effe, et gradu tantummodò differe; imò curationem puerorum multò tutiorem ac faciliorem, quàm virorum ac mulierum.” *De Morb. Infant.*

* *Neque pot' effe fcire quomodo morbos curare conveniat, qui unde bi fint ignoret—Pertinet ad rem omnium proprietates noffe.*
CELSUS.

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A COMPARATIVE ANALYSIS

Of the Milk of Women, the Cow, Goat, Ass, Sheep, and the Mare;

By M. Boyssou of Aurillac in Upper-Auvergny.

| Quantity of Milk. | Names of the several Animals. | Their Nourishment, &c. | Ages of the Milks. | Quantity of Butter. | Quantity of Cheesy Matter. | Quantity of Saccharine Salt. | Quantity of Extract of Bal. Marie. | Produce or Extract in Bal. Marie. |
|------------------------------------|-------------------------------|------------------------|--------------------|-----------------------|----------------------------|---|------------------------------------|-----------------------------------|
| One Mark pound Weight. (8 Ounces.) | Woman's milk. | Inhabitant of a City. | 7 months. | 4 drachms, 48 grains. | 1 drachm, 48 grains. | 6 drachms, 48 grains, in 4 cryf-tallifications. | 1 drachm. | 1 ounce, 8 grains. |
| Ditto. | Cows milk. | Fresh Pasture. | 6 weeks. | 3 drachms, 45 grains. | 5 drachms, 51 grains. | 4 drachms, 40 grains, in 5 cryf-tallifications. | $\frac{1}{2}$ drachm. | 9 drachms, 42 grains. |
| Ditto. | Goats milk. | Ditto. | 3 months. | 4 drachms, 24 grains. | 7 drachms, 48 grains. | 3 drachms, in 4 cryf-tallifications. | $\frac{1}{2}$ drachm. | 2 ounces, 16 grains. |
| Ditto. | Asses milk. | Ditto. | 2 months. | 10 grains. | 2 drachms, 16 grains. | 6 drachms, 16 grains, in 6 cryf-tallifications. | 1 drachm. | 7 drachms, 12 grains. |
| Ditto. | Sheep's milk. | Ditto. | 3 months. | 5 drachms, 40 grains. | 7 drachms, 30 grains. | 3 drachms, in 4 cryf-tallifications. | $\frac{1}{2}$ drachm. | 2 ounces, 16 grains. |
| Ditto. | Mares milk. | Ditto. | 2 months. | 6 grains. | 2 drachms, 48 grains. | 4 drachms, 48 grains, in 5 cryf-tallifications. | 2 drachms, 36 grains. | 7 drachms, 12 grains. |

A comparative Analysis, by ABRAH. VAN-STRIPIAAN LUISSIO, Physician to the Dauphin; and NICOL. BONDT, Physician at Amsterdam.

| Scale 100. | Cream. | Butter. | Cheese. | Sugar. |
|------------|---------------------|--------------------|--------------------|--------------------|
| Cows milk. | $4-\frac{1}{16}$. | $2-\frac{1}{16}$. | $8-\frac{1}{16}$. | $3-\frac{1}{16}$. |
| Woman's. | $8-\frac{1}{16}$. | 3 | $2-\frac{1}{16}$. | $7-\frac{1}{16}$. |
| Goats. | $7-\frac{1}{16}$. | $4-\frac{2}{16}$. | $9-\frac{1}{8}$. | $4-\frac{3}{8}$. |
| Asses. | $2-\frac{1}{16}$. | — | $3-\frac{5}{16}$. | $4-\frac{1}{2}$. |
| Sheep's. | $11-\frac{2}{16}$. | $5-\frac{1}{16}$. | $15-\frac{3}{8}$. | $4-\frac{5}{16}$. |
| Mares. | $\frac{1}{16}$. | — | $1-\frac{1}{2}$. | $9-\frac{1}{16}$. |

A

TREATISE,

ᄒc. ᄒc. ᄒc.

THE following account of the diseases of children, which now makes its appearance in a somewhat new form, and less exceptionable to professionable men, it is hoped may place this branch of medicine upon a respectable footing, and exhibit a practice as founded and rational as in any other. That no such serious attempt has hitherto been made, is sufficiently acknowledged; although detached parts, and some of the more important diseases of childhood, have been ably considered, at different periods.

For the manner in which the work is now executed, the author can only say, that in addition to a long experience, he has carefully consulted the most respectable authorities, as well ancient as modern; while by a close attention to facts, he has endeavoured to obviate the ef-

fects of that peculiar veil* which is said to obscure infantile disorders. A practical arrangement of them has been studied, comprehending likewise the natural consecution of parts, and the order of time in which the complaints severally appear; that some conformity may be every where observed. Regard has also been had to their respective causes and symptoms, tending to elucidate their nature, and render their treatment more obvious than has been generally imagined.

To their immediate Diseases, is added an attention to some of the principal Accidents and little Injuries to which the earlier periods of childhood are peculiarly liable; and though such articles may, indeed, be very unimportant to some readers, it is presumed they will have their use, and may, possibly, prove no small satisfaction to others. And here it may not be improper to observe, that whatever merit the publications of others may possess, it may,

* There is nothing to which this peculiar obscurity may be referred, but the incapacity of infants to describe their own feelings. There are, nevertheless, other sources of information, less fallacious sometimes than the more literal descriptions of adults, which in nervous complaints particularly, would tend to perplex the ablest physician if he should always be led by them; and the like necessary discrimination will serve him equally well in the treatment of infants.

nevertheless, with great propriety be remarked, that they either form a part of some large systematic work, or else, they are far too concise, and have omitted complaints of too much importance to be over-looked, as well as been necessarily silent on many, with which the authors themselves were unacquainted.

The judicious treatment of infantile disorders demands, indeed, equal attention and experience; close and repeated observation being the great mean of supplying the want of that kind of assistance which the personal information of adult patients frequently affords. The disorders of childhood, however, are no-wise mysterious, nor would ever have been thought so, if they had always been submitted to proper hands, and been as carefully investigated as the diseases of adults. Nor is it otherwise with the diseases of the earliest infancy, of which (as a further balance to the want of oral information,) it may be safely asserted, that as they are more obvious than they are generally supposed, so is their number comparatively small, their cause uniform, and the treatment of most of them simple and certain.* This is especially

* *Facillimè inquam in morbos dilabuntur infantes, et nisi aut seriùs aut imperitiùs tractentur, facillimè in sanitatem restituantur.* HARRIS, *de morbis atis infantum*,

true of the disorders of this period, though it may, perhaps, be objected, that their various diseases cannot all originate from one, and the *same* cause; nor is it my intention to assert it, though it may be safely advanced in regard to a great number of them. It is to be remarked likewise, that it is precisely the complaints of *early infancy* that are here spoken of; though it is, nevertheless, very evident that there is a greater *uniformity* also in the *causes* of the several disorders even of older children than there is in those of adults, which have very often various, and dissimilar remote causes, at different times, and in different habits: E. G. *obstructed catamenia, ascites, &c.*

For the proof of these assertions, as well as in order to establish a rational practice, I shall first consider distinctly the Causes and Diagnostics of their complaints, before I attempt to enter upon their cure.

And here I shall not attend to their various remote causes, but shall confine myself to a practical consideration of the subject, and point out their obvious occasions and symptoms. And on this account, I shall not take notice of all the changes which nature herself induces during the growth of infants, as they pass from one stage of life to another; which are, doubtless, remote

causes of some of their complaints. A more minute attention, indeed, would lead only to diffuse and uncertain theories, which have been established in one age, only to be rejected in the next. In this country,* at least, such vague theories are now deservedly laid aside, though an era, perhaps, better calculated for their investigation, than those wherein such subjects were agitated with a zeal proportionate to the writers comparative ignorance of anatomy, and those principles of the animal economy, which can only be established by a close observance of facts.

A principal CAUSE, mentioned both by ancient and modern writers, is the great moisture and laxity of infants; which is necessary, however, in order to the extension of parts, and the rapid growth of young children. This laxity arises from the vast glandular secretion, their glands in general being much larger in proportion, than those of adults. I might instance in the thymus gland, and particularly in the pancreas and liver. But besides these, there are

* It is to be lamented, that this is not yet more universally the case elsewhere, even amongst men of letters, as appears from an anonymous latin work, on the diseases of children, published at *Amsterdam* in 1760, replete with obsolete theories, and remote causes of diseases, but possessed of less practical matter than one should have thought any work of so late a date must contain.

innumerable glands situate within the mouth, œsophagus, stomach and bowels, which are continually pouring out their contents into the first passages. This is, doubtless, a wise provision of nature, and I cannot, therefore, think with Dr. ARMSTRONG, that the gastric juice renders the chyle less fit for absorption, for without a due proportion of it, no good chyle can be made; but as we do not strictly follow the dictates of nature in the management of children, as to their food, manner of clothing, sleeping, &c. this abundance of slimy matter may often over-load the stomach and bowels, the constant seat of the first complaints in the infant state.* A second cause arises from the great irritability of the nervous system, and the delicacy of the muscular fibres, whereby the ferous juices do not readily enough return, but remain longer than is consistent with a free circulation through the extreme parts. The quality of the milk, or other food with which infants are nourished, may be accounted a third. In addition to these general causes, may be reckoned the want of ex-

* Non quod ætas per se sit causa ullius morbi, est enim res naturalis et temporis determinatio, sed quia disponit ad morbos quosdam facilius suscipiendos, si causæ eorum accesserint.
PRIMEROS: *de Morb. Infant.*

ercise,* which at a more advanced age, happily for us, we are obliged to make use of, and which, art, in general, does not duly supply in regard to infants.†

Hence arise acidities in the first-passages, a constant attendant upon all their early complaints.§ Among the first of which, has been

* Exercise is the grand mean of health.—The irrational species are capable of affording it to themselves almost as soon as born; and though infant children are not, they are passive, and can be *exercised*. Nature and instinct point out the expediency of it, and the fond mother who follows only her own inclination, naturally, and insensibly adopts it. On this head see the *Article of Motion and Rest*, in Vol. III.

† Together with these sources might be noticed another, not mentioned by writers, though not, indeed, an efficient cause of infantile complaints, but an occasion arising from that constitution the Creator appears to have established, as a law of nature running through the animal race; I mean, the rank which the several species hold in that scale. For, whatever their apparent comparative strength may be, the more noble and useful amongst them, whether domesticated, or wild, (though, indeed, we cannot say precisely what the latter would be in a perfect state of nature,) seem to be liable to far the greater number of evils. It is possible, indeed, some philosophers may be disposed to draw very uncharitable inferences from such a position; but there are others who conceive it to be very justifiable, and analogous to various established facts in the dispensations of providence towards lapsed creatures.

reckoned the retention of the meconium, and the last (which may be termed a disease at all peculiar to infants), is the cutting of the teeth, in which likewise the state of the bowels is very much concerned.

Upon each of the above heads, it may be necessary to make further observations as occasion may offer, in order to take notice of certain accidental causes arising from mismanagement, or errors in the *non-naturals*, as they have been called; especially in regard to the quantity of nourishment administered to infants, and an inattention to the state of their bowels.

THE SYMPTOMS of these first diseases of infants, (by which we also judge of their nature), are chiefly retention and excretion; sour belchings; sickness; vomitings; purgings; the nature of the matter thrown off; watching; inquietude; contraction, and sharpness of the features; blueness about the mouth; turning up of the eyes; thirst; heat; the manner of breathing and of crying; retraction of the lower extremities; and pustules, or eruptions, external, or internal. The pulse and urine are less certain marks, in the greater number of their complaints, than they are in older children, and adults. To these may be added, the openness, or firmness of the fontanelles, and of the

futures; the strength and figure of the bones; and the relaxation or contraction of the skin in general, and of the scrotum in particular.

Having thus briefly adverted to the general causes and symptoms, I proceed to the consideration of the Disorders themselves, beginning with one hitherto unnoticed by writers; which though very rare, I believe, seems to be the first that can take place after birth, and is a kind of

SYNCOPE, *or* FAINTING.

MANY new-born infants, it is well known, lie, for some time, in a very feeble and uncertain state, with no other sign of animation than a weak pulsation of the heart, and the arteries of the umbilical cord. But I have only in one instance seen any thing at all resembling the true syncope, after the living powers have once prevailed. In this case, the child was born at the instant its mother was moving from her chair into her bed, and in consequence, unfortunately, fell with violence on the floor. It, however, very soon cried, and did not appear to be materially injured; but a day or two afterwards fell into a strange, languid state, very different from any thing I had been accustomed to see. Stools being procured, it revived, and frequent-

ly took plenty of nourishment, but at intervals, sunk into its former languor, breathed very faintly, and died about the sixth day.

But, with the following case, which comes precisely under the idea of *syncope*, I have been favoured by the ingenious Mr. HEY, senior Surgeon to the Infirmary at *Leeds*.

HE reports, that an infant, born at the full time, lay moaning and languid for four or five hours, and was then seized with a fainting fit; in which it continued for half an hour. In this state Mr. HEY found it. It had ceased to breathe, except now and then giving a gasp, or sob; and was as pale as a corpse. There was, however, a sensible pulsation of the heart, though feeble and slow; but whether the circulation had been kept up all the time previous to his visit, could not be ascertained.

As soon as Mr. HEY had time to consider the case, he directed the infant's nostrils and temples to be stimulated with the volatile alkali, and when it became capable of swallowing, a few drops of the *tinctura valerian. volat.* were administered in a tea-spoonful of water, and repeated at proper intervals: it likewise took a tea-spoonful of the *ol. ricini*.

The child had three other similar attacks in the course of the day, though it had slept com-

posedly between whiles, and sucked at the breast. It had seven more fainting fits in the night, two of which were severe ones; but Mr. HEY was not called again till the next morning. He then observes, that reflecting on the case, and comparing it with that of a man whom he had seen thrown into convulsions by a large bleeding, after having hanged himself, which were cured by the above tincture, given in wine; Mr. HEY pursued the like plan with the child, and administered the drops in a tea-spoonful of a generous white-wine, every two hours. The infant was very sensibly refreshed by the dose, and had no return of the disorder, except in the slightest degree; and became a very healthy child.

The Tinct. valer. volat. administered in this manner, is also an excellent remedy in other instances of debility and languor, when the primæ viæ have been previously cleansed.

A kind of syncope not dissimilar to this, but taking place a few days after birth, has been removed by a very different stimulant, which would not have been had recourse to, if various other means had not failed. Infants in this syncope, appear to be dying for several days, and have even been concluded actually dead; but reviving again, relapse as before. In this state, the

12 DISCOLOURATION *of* NEW-BORN INFANTS.

fume of lighted tobacco has been forced into the mouth with the happiest effect, though at the expence of a considerable struggle succeeded by a strong convulsion. Upon the spasm subsiding however, the infant soon falls asleep, and awakes apparently well, and continues so for several hours; but the syncope returning, the fume should be repeated.

If the struggle should return, it will prove slighter than the former, and neither that, nor the convulsion will probably be renewed after a second recovery.

DISCOLOURATION *of* NEW-BORN INFANTS

AN affection of new-born infants not much more common than the former, is a discolouration of the face and extremities, and sometimes of the whole body, seemingly independent of the circumstances attendant upon the birth. A mere discolouration of the face after laborious deliveries, is known to be very common, and gradually disappears, without affording any occasion of alarm. But in the present instance, the parts are very black, and afterwards turn of a leaden-blue colour; sometimes appearing at the instant of the birth, and at others have not been particularly noticed for an hour or two af-

terwards. In one instance, I remarked the discolouration of the face to be partial, appearing in spots; the greater number being of the size of small peas, but some larger. In some instances, the discolouration abates a little, and in others not; sometimes it goes entirely off, and returns again, and in that case is of more serious consequence, and commonly dangerous. From an examination of the parts after death, I have learned, that this recurring blackness depends upon some internal malformation or derangement, (similar, though not precisely the same with one to be noticed under the head of congenite disorders), and for which nothing that I know of can be attempted, but the general remedies for fits; by which it is usually followed when none of the little subsequent means prove effectual.*

From the result of this recurring blackness, it seems always to be owing to some fixed cause, excited into action by certain circumstances, particularly any sudden agitation of body or mind. In such cases, the disappearance of the

* In one instance, the subject of which died about the tenth day after birth, the malformation was in the stomach; the pylorus being preternaturally strait, with difficulty permitting the food, (which was only breast-milk) to pass into the lower bowels.

discolouration is followed by a return of the tinge of as deep a colour as at first. But in the innoxious kind, which is the more immediate subject of this chapter, though the blackness in some instances, after abating a little, again returns, it never acquires the deep colour it had at first, and when it has once compleatly disappeared, it never returns.

This discolouration, therefore, probably depends merely on some spasm affecting the external veins, and interrupting the free return of the blood into the larger vessels. Where this is the sole cause, the discolouration, howsoever great, is, probably, harmless, and would in every case soon abate, and in time entirely disappear; but is removed sooner by proper remedies. The only necessary means seem to be, to procure stools, (which should be immediately solicited by clysters); to excite vomiting if the infant appears to be sick at the stomach; and to rub, or gently chafe the body and limbs before the fire. But nothing tends to remove the blackness so suddenly or sensibly, as applying a leech or two upon, or near the livid parts; and should therefore always be had recourse to, if the blackness does not very evidently abate in an hour or two after birth, by the help of one or more of the means that have been recommended.

A disorder as common as the two foregoing ones are rare, and probably next in order of time, is

The RETENTION of the MECONIUM.

THE MECONIUM is that black, viscid, or tenacious matter, which, it is well known, every infant parts with by stool, for the two or three first days after it is born, or retains it to its manifest injury.

The ordinary source of infantile complaints has already been said to originate from something amiss in the first-passages, according to the most ancient and modern writers.* And I am satisfied, that a foundation is sometimes laid for them, from not duly attending to an early expulsion of the meconium: which will sometimes firmly adhere to the coats of the bowels, and remain for many days, unaffected even by powerful medicines, as I shall have occasion to remark as I go on; sometimes occasioning dangerous complaints from the birth, and at others, giving rise to more remote evils. I shall only observe in this place, that though it should not be all retained, yet a part will often remain much longer than has been usually imagined,

* HIPPOC. CELSUS, ÆGINETA. HARRIS. ARMSTRONG.

and will come away, perhaps unnoticed, at a late period, where no retention of it has been suspected. Of this I can have no doubt, having been called to visit infants after the month has been expired, who have been unwell through all that period, and from whom meconium has still been coming away. A tea-spoonful of oil of ricini, given once or more, has soon carried off a great quantity; upon which all their complaints have disappeared.

THE meconium is, probably, no longer of use after the child is come into the world, unless it be to keep the bowels from collapsing, till they can be replenished with the aliment the child is soon afterwards to receive. Whereas, if it be not soon carried off, it will not only change the quality of the milk, or other food, as it descends into the bowels, but itself also becomes highly acrid, (the greater part of it being bile) and cannot fail to produce indigestion, flatulency, pain, purging or costiveness, and other similar evils; and the meconium is further disposed to this acrid state, on another account, *viz.* from the admixture of atmospheric air. Whilst the infant remains inclosed in the womb, it is secured from all contact of air, and therefore the alimentary contents remain harmless and bland, though increasing for many months;

but it is well known how soon every secretion or extravasation will become acrid, upon the admission of air into any cavity where it may be lodged. And it is, doubtless, on these accounts, that provident nature has imparted an opening quality to the colostrum of all animals; a certain indication to the rational species, to assist the expulsion of this matter, now no longer required. For though a child should even be suckled by its own mother, (in which case, there is, doubtless, less occasion for other assistance) yet we know that nature doth not, in every instance, always fully accomplish her own designs: and it is from some striking instances of the truth of these observations; that I have said so much on this subject, which I have also been the more inclined to, because so many writers have passed it over almost in silence.

I am aware that all those who esteem medical people to be officious disturbers of nature, have objected to their assistance in this instance, and conclude, that she would do the business much better if left to herself. And there are even some physicians of this opinion, amongst whom I find Dr. BUCHAN, whose abilities and reputation claim particular attention; though he, perhaps, may not be so much engaged amongst very young infants, as those whose peculiar province

it is to attend them from the birth. But there can be no general rule without exceptions,* and as, doubtless, many children would do very well without any such assistance, so have I found others who would not,† though suckled by the parent herself, of which I shall presently give a very striking instance. On the other hand, I believe, no infant can be essentially injured by constantly assisting in this work, provided the means first made use of be lenient, as they ought always to be.—It is the province of art to superintend nature, and not only to guard against her excesses, but so to watch over her, as to ensure the accomplishment of her intentions, whenever we perfectly comprehend, and can effect them without the risk of doing harm. § And this intention is as rational, as the practice is successful, there being an evident acidity in the meconium, as I

* Vix ulla perpetua præcepta medicinalis ars recipit.
CELSUS, *Præf. Lib. i. p. 17.*

† Indeed, it is now well known, that the formidable disease, so fatal to new-born children in the *West-Indies*, called the locked-jaw, or jaw-fallen,‡ is almost always owing either to unwholesome, and confined air, or to a want of purging off the meconium.

§ A tree will produce fruit in its wild state; but by human culture the tree is often preserved, and its fruit improved, far beyond the course of nature.

‡ See *Tetanus*.

have ascertained by repeated experiments. The red-gum and thrush are also much more rank where the symptoms of acidity are most prevalent, and on the other hand, less commonly take place (as I have for many years observed) where the meconium has been early purged off.

For this purpose, amongst others, a new remedy has of late years been recommended, as preferable to any purging medicines whatever.* Mankind has ever delighted in extremes—no sooner has any thing, formerly judged to be hurtful, or even poisonous, been found in certain cases, to be very useful, than it is supposed to be capable of doing every thing, and supercedes all that the wisdom of former ages has proved to be salutary. Hence, some advantages experienced from the use of *vinum antimonii*, in a variety of children's complaints, as far as they arise from one common cause, has induced some people to extol it as a universal remedy. But wherefore give an emetic, calculated to empty the stomach, in order to expel the meconium from the lower bowels?† It is univer-

* Dr. ARMSTRONG, *On the diseases most fatal to infants*. 1767.

† On examining the first-passages of still-born infants, (newly-dead) it appears, that the large intestines contain the true meconium; the smaller bowels, only a thin bilious

fally allowed, and by this writer also, that emetics are not to be administered when the bowels are full, which, in this instance, is precisely the case. It is true, *vinum antimonii* does not always vomit children, nor will a little matter oftentimes do this; it is sometimes, indeed, found to act as a purgative: but if this be the intention, why not adhere to the old, and more certain method, and direct at once such things whose proper operation may be depended upon? Not the stomach, but the bowels, are the natural and safe outlet for most infantile complaints, and a want of due attention to this circumstance has been productive of some evils, which many practitioners, I think, are not sufficiently aware of.

It is very evident, that some gentle purgative is indicated on this occasion, and that it should be of such a kind as will create as little disturbance as possible, and especially should not be of an offensive, or indigestible nature; though such

fluid mixed with a little gastric juice. The stomach contains still less, as no bile can enter it but by regurgitation from the duodenum, and the gastric juice is in small quantity, not enough to be brought up by an emetic without violent straining; which I should imagine it can answer no good end to excite by a vomit, the first hour a child comes into the world.

have been very commonly advised. In general, indeed, a very little matter will suffice; perhaps a little syrup of roses, diluted with some thin gruel, and given occasionally by tea-spoonsful, will mostly answer the end; will also serve to keep the child quiet, and so prevent the nurse from giving it improper food. But if this should fail to procure stools, a watery infusion of rhubarb, a tea-spoonful of the wine, diluted as above, or a dram of castor oil, will be found preferable to the common oils and syrup in general use.*

The objection now made to oily medicines is very much increased, from nurses scarcely ever giving the quantity that is directed, in the course of the first twenty-four hours, as it is always designed; and administering the rest long after the child has begun to suck, or to feed. At this period, mixing with the nourishment, it has a direct tendency to produce indigestion, wind, and the very complaints, which the oils administered in proper time, were designed to prevent. Not to add, that, from common oil and syrup being the usual purgative on this occasion, nurses are led to procure a repetition of it, and to administer it whenever an infant happens to be

* See HARRIS.

costive during the month ; and from whence the above evils may be frequently induced.

But it has been observed, the meconium is not always disposed to come away, even by the assistance of common purgative medicines. Having, therefore, begun with such as the above, if the child should have no stool for twelve or fourteen hours after birth, and especially if it seem to be in pain, a clyster ought to be thrown up ; which may be repeated, if necessary, a few hours afterwards. And here I would remark, that in the cases where more powerful remedies are required, scarcely any evacuation will be procured by these gentler means ; for, as far as I have seen, wherever I could procure one copious stool by a clyster, or gentle laxative, the rest of the meconium has come away with little, or no further assistance. But as it sometimes happens, that neither clysters nor purgatives have any sufficient effect for several days, very powerful means must then be made use of ; there being reason to suspect a morbid suspension of nervous influence. I shall close this subject therefore, with a remarkable instance of this kind, (of which, I have seen many,) as a proof of what powerful remedies may sometimes be required, and how necessary it is to pay some attention to this early complaint of infants.

The child was born of very healthy parents, (not at all of constipated habits) after a quick, and comparatively easy labour; and appeared to be itself in good health.—To avoid prolixity, I shall only briefly observe, that the child took a little rhubarb an hour or two after it was born, but having had no stool when I saw it the next day, I ordered a clyster to be thrown up. In the evening, the child became drowsy and insensible, and when roused, it moaned, but seemed unable to cry. It continued pretty much in this state, (except that at times it appeared to be in great pain, and was evidently convulsed) for six days; and was nourished chiefly by breast-milk, given by tea-spoonsful, seldom reviving sufficiently to suck.

It had no stools, but such as made only a few spots on the cloths about the size of a shilling, till the sixth day, and then they were very small, hard, and lumpy. The next day it had more of this kind, and had not till the eighth day, any thing like a proper stool, which was also mixed with hard lumps; but on the eleventh day, they were thinner, and on the thirteenth came very freely.—In the course of six and thirty hours, I prescribed two ounces of the common infusion of senna, two drams of rochelle salt, four grains of jalap, and a grain of ca-

lomel; besides purging clysters, and the use of the warm bath. The next day, the child took four grains of ipecacuanha at two doses; and forty drops of vinum antimonii, at four times (in the course of an hour) without any effect; and at another period, six drams of castor-oil, besides several doses of manna.* Three days after the child had gotten rid of the meconium, the thrush made its appearance; which was slight, but continued above three weeks.

From such instances, as well as the remark already offered on the tetanus of the *West-Indies*, the expediency of having recourse to some safe and effectual means of purging off the meconium seems to be evidently pointed out; more especially when we consider the dangerous complaints, which are said to arise in some of the hospitals in *Paris*, from an undue retention of this viscid matter, as will be further noticed in another place.

ICTERITIA, or INFANTILE JAUNDICE.

THE Jaundice of infants seems always to have been improperly conceived of. Those who

* See a similar instance, in the chapter on the Croup.—The obvious cause of the inactivity both of emetics and purgatives, which we sometimes meet with in infants, is, proba-

have written only on children's diseases, have usually passed it over in silence, whilst others have considered it always as rather a serious complaint, and have prescribed as for the jaundice of adults. On the other hand, nurses have usually accounted the yellowness that appears about the third day after birth, if unusually deep, (termed by some the yellow-gum) as the true jaundice. Certainly neither of these opinions is just; for the latter of these appearances requires no attention at all, and though infants are not very often troubled with the true jaundice like adults, they nevertheless are liable to slighter affections of that kind which claim some attention. These are easily distinguished from the common yellowness, by the tunica albuginea being always very yellow; but the nails are not tinged, as in the jaundice of adults,* though it is probable they usually would be, if the complaint were long neglected, and the child suffered to be costive. I have waited some days to see if the yellowness would go off of itself, as the usual tinge does; but it has always increased rather than diminished. It arises from viscid

bly, the great quantity of mucus with which the first passages are lined, together with a deficiency of nervous influence, a frequent concomitant of such a state.

* See the *note* in page 27.

matter obstructing the gall-ducts, and therefore requires a little emetic. The tartarised wine of antimony is a very proper one on this occasion, as it may likewise procure two or three stools; but as children in this complaint are not easily made to vomit, should the wine fail, three or four grains of the powder of ipecacuanha may be given, as more certain in its operation; and the next day four or five grains of rhubarb. Should the symptoms continue, the emetic ought to be repeated after two or three days, and rhubarb be given about every other day, till the yellowness disappears; which under this treatment, never continues more than ten or twelve days, unless the infant be very costive, or the stools are of a very pale colour; which is but rarely the case. Where an emetic has been objected to, and the whole attention confined to keeping the belly open, the yellowness has continued when I have taken my leave at the end of the month, attended with langour, and other symptoms of debility. When the belly is unusually costive, and the stools very pale, infants are generally found to have a true jaundice, and require some saponaceous medicines, such as the aqua kali, together with daily frictions of the stomach and belly, and the use of the warm-bath.

Women long afflicted with jaundice, during any part of their pregnancy, and even actually brought to bed in that state, do not infect their children,* unless they also suckle them; but from some striking instances, I have found, that suckling in that state is capable of communicating the true jaundice to a great degree, and that it will not be cured, but by the recovery of the suckling mother or nurse, or by the infant being weaned, as well as properly treated.

The true jaundice, distinguished by the skin being every where discoloured, as well as the whites of the eyes, seems to be much more

* I have myself never met with such an instance; but Mr. BAUMES, who has been very attentive to the disease, is satisfied, that he once saw an infant so infected from the womb: but in this case, the child died very soon in a very diseased state, the internal part of the liver being in a state of suppuration. Other instances are given, but they are not unexceptionable. Vide, *A. N. Curious. Dec. i. A. vj. Obs. 241. Dec. iij. A. ij. Obs. 40. Fr. Delaboe Silvius, Prax. Med. Lib. j. Cap. 46, No. xi. p. 302. Theod. Kerkring, Spicil. Obs. 57, p. 118.* I have, indeed, lately seen an infant (the mother of which however, was not icteric) whose finger nails were, at the birth, of a deep yellow as in any icteric adults, and very sensibly from a tinge underneath them; but those of the toes were not at all discoloured, nor had the infant any other symptom of jaundice. It, indeed, brought up, by puking, a considerable quantity of yellow matter, apparently bile, very soon after it was born; but the tinge of the nails disappeared the next day, and the infant thrived very well.

common among new-born infants in *France*, than in this country, as appears from a memoir written by Mr. BAUMES, and to which a prize-medal of the *Faculty of Medicine* in *Paris* has been adjudged.

In that work the various causes and nature of the disease are distinguished; and a correspondent treatment pointed out with great accuracy and judgment. Throughout the tract there seems also to be much ingenious and plausible theory; though I cannot agree with that able physician, in supposing the jaundice to be occasioned by the retention of the meconium, otherwise than from this viscid matter sometimes obstructing the orifice of the biliary ducts. For in the several instances I have met with of the most obstinate retention of that secretion, there has not been the least disposition to jaundice; nor can I conceive, that any part of the meconium is usually absorbed in icteric cases, as Mr. BAUMES has imagined; neither does such an incident appear to be necessary in order to account for the frequency of the disease in that kingdom, or elsewhere.

As to the treatment, under the different circumstances there described, I meet with nothing that militates against the more general account I have given of this disease, or the

treatment adapted to it, under the form wherein it appears in this country.

There are not wanting evidences of this disease, both in the more slight and severe forms of it, being in some families hereditary; of the former, MORGAGNI has furnished a remarkable example in his own family; and of the latter, Mr. PEARSON has favoured me with a very curious one, which the reader cannot fail to be pleased with, as no such instance, I believe, is to be found upon record. I shall submit the account in his own words, and without any comment; as further experience is necessary to enable us to draw any practical inferences.

MORGAGNI's words are, *de quindecim filiis meis, cum mox a partu flavi omnes, et nonnulli etiam haud ita leviter, essent facti, cunctis per se, nullo prorsus artis auxilio, paulatim icterus solutus est. Lib. iii. Epist. 48. art. 60.*

Mr. PEARSON's account runs thus:

Mrs. J. had been the mother of eleven children; on nine of which the jaundice appeared a few days after they were born, and they all died within the period of a month after their birth. The tenth child lived six years, was then afflicted with the jaundice, and died. In May 1796, Mrs. J. was delivered of her eleventh child; on the third day after its birth, the skin became

yellow, and the child was at the same time remarkably torpid and sleepy, and seemed to be slightly convulsed. On the following days the colour of the skin often varied, being sometimes of a deeper yellow, and at other times nearly regaining its natural colour; the child continued, however, in the same languid and almost insensible state, but received nourishment, and sucked the breast of its mother, till within a few hours of its death, which took place on the ninth day. I opened the body of this child the day after it died, and shall now proceed to describe the appearances exhibited on dissection.

The skin had nearly lost its yellow colour; and the child did not appear at all reduced by the disease.

The liver was almost twice its natural size; the whole concave surface of the right lobe had a livid appearance, but this dark colour did not penetrate above a line or two; and the internal substance was found and healthy. The convex part of the liver, was of the natural colour and firmness, except on the margin of both the lobes; there the thin edge exhibited a highly injected appearance; the redness was however, less vivid and remarkable on the left lobe, than on the right. There was also a slight adhesion of the lower part of the right lobe to the peri-

tonæum. The gall bladder was nearly filled with bile of a deep yellow colour; and its ducts were permeable. The stomach was in a natural state, and the intestines were without any marks of disease. In the thorax, the lungs were of a healthy appearance. The heart seemed to be larger than common, and the blood vessels on its surface were remarkably turgid. The right auricle was distended with blood; and the pericardium contained about a table spoonful of water. Every person who is conversant in the diseases of children, knows that new-born infants are frequently affected with the jaundice; and it is as well known, that this appearance is often of little importance; scarce requiring any particular medical aid, and sometimes disappearing spontaneously. MORGAGNI has furnished a remarkable example of this in his own family.—*De quindecim filiis meis, cum mox a partu flavi omnes, et nonnulli etiam haud ita leviter, essent facti, cunctis per se, nullo prorsus artis auxilio, paulatim icterus solutus est. Lib. iii. Epist. 48. Art. 60.*

ERYSIPELAS INFANTILE.

IN a former edition it was observed, that this complaint, (noticed under the term, anomalous inflammation) did not appear to have been dis-

tingly noticed by any preceding writer. But I have since found that HOFFMAN, though he makes no mention of any such complaint in his *Morbi Infantum*, has the following intimation in his chapter *de Febre Erysipelacea*,* and it should therefore seem, was acquainted with that species of the disease which appears in the more precise form of erysipelas; but which he had noticed only in the region of the belly.—“ Umbilicalem
“ regionem in infantibus frequentius infestat, ac
“ inde per abdomen spargitur, cum gravibus
“ pathematibus, funesto ut plurimum eventu.” The FRENCH have likewise spoken lately of a somewhat similar affection, combined with different endemic complaints infecting crowded hospitals: and it is certainly sometimes found to follow disorders of the first passages. The disease, however, not appearing to have been any where noticed in its simple and genuine form, it has seemed necessary to give a name to the disease; which, therefore, in my last edition, was termed *Erysipelas Infantile*.

It is a very dangerous species of the spurious, or erysipelatous inflammation, which I have not often met with, but in lying-in hospitals. The ordinary time of its attack being a few days after birth, it was at the first thought never to appear

* *Sec. i. Cap. 13.*

later than the month; but this has been since found not to be the case. It seizes the most robust, as well as delicate children, and in an instantaneous manner; the progress is rapid; the skin turns of a purplish hue; and soon becomes exceedingly hard.

The milder species of it often appears on the fingers and hands, or the feet and ankles, and sometimes upon or near the joints; forming matter in a very short time. The more violent kind is generally seated about the pubis, and extends upwards on the belly, and down the thighs and legs; though sometimes it begins in the neck, and is equally fatal. The fact, indeed, seems to be, that it is always more dangerous when it seizes, or spreads to any parts of the body, than when confined to the extremities. The swelling is but moderate, but after becoming hard, the parts turn purple, livid, and very often sphacelate, especially in boys, when it falls on the scrotum; the penis swells, and the prepuce then puts on that kind of emphysematous appearance, which it has when a stone is sticking in the passage; or in the anasarca of the scrotum.

Upon examining several bodies after death, the contents of the belly have frequently been found glued together, and their surface covered

with inflammatory exudation, exactly similar to that found in women who have died of puerperal fever. In males, the tunicae vaginales have been sometimes filled with matter, which has evidently made its way from the cavity of the abdomen, and accounts for the appearances of the organs of generation just now described: in females, the labia pudendi are affected in like manner, the pus having forced a passage through the abdominal rings.

Various means were made use of at the *British Lying-in Hospital* without success; though the progress of the inflammation seemed to be checked for a while by saturnine fomentations and poultices, applied on the very first appearance of the inflammation; but it soon spread, and a gangrene presently came on, or where matter had been formed, the tender infant sunk under the discharge. It is now several years since I proposed making trial of the bark, to which sometimes a little confectio aromatica has been added: from which period several have recovered. Some time after this, linen compresses wrung out of camphorated spirit, were applied in the place of the aqua lithargyri acetati, which has proved more successful in checking the inflammation in several instances; nevertheless, the greater number of infants attacked with this

disorder, sink under its violence, and many of them in a very few days.

In a few instances, the disease has been attended with some varieties. Infants have not only come into the world with several hard, and sub-livid inflammatory patches, and ichorous vesications about the belly and thighs, but with other spots already actually in a state of mortification. A large eschar has soon spread upon the spine of the tibia, with smaller ones about other parts of the legs, and on several of the toes and fingers. In such cases particularly, the bark and cordials must be exhibited liberally, and the inflamed and mortified parts be well fomented, and dressed with warm applications.

From the good effects attending these means, particularly on a very copious use of the bark, there is further room to hope, that we may be yet more successful in the treatment of this formidable disease; which has not, however, appeared so frequently at the hospital for the last seven or eight years, as in former times.

CORYZA MALIGNA, or MORBID-SNUFFLES.

I Have given this appellation to an uncommon discharge from the nostrils, taking place in the month, usually in the first or second week

after birth ; and in one or two instances the infant has seemed to be born with it. This disease has passed under the name of the snuffles, on account of the kind of noise such infants make in respiration ; but it is not only a far more severe, but a very different complaint from the one commonly intended by that name. The discharge is much more abundant than that arising from taking cold, and is truly purulent from the beginning, and afterwards sanious : though in a few instances, children affected with every other symptom of this disorder, have no discharge from the nose. But under every form of the disease, infants always appear weakly, and as if unwell, though without any precise complaint, and are constantly incommoded from the stoppage of the head, especially in their sleep ; during which they breathe with difficulty. It generally continues for several weeks, and upon its going off, children who have had the disorder only slightly, have become otherwise unwell, and such as have been brought up by hand, have been dangerously ill in their bowels.

The plan of treatment which I adopted in the first instances I met with, was to keep the body cool and open ; or if the infant happened to be over-purged, or was languid, to administer absorbents and cordials. I recommended the

nurse's diet to be attended to, when a child is suckled, and to keep a little blister open on its head, or on the nape of the neck; but this has since appeared, in some other instances to be hazardous, although no evil ever ensued where I had directed it.

I had attained no further knowledge of this complaint, when Dr. DENMAN obliged the public with a more ample and formidable detail of it; which had fallen more frequently in his way, than it had done in any other practitioner's.

His account of it is so accurate, that I shall in this edition likewise borrow the description of its principal symptoms from him, adding to it, such as later experience has furnished. He remarked, that this disease seemed to be new in its manner, though not in its kind, at the time of its first making its appearance, which was frequent in the summer of the year 1790; in the June of which year it was that I also first saw it.

After mentioning the little varieties noticed in the discharge, and the most formidable symptom of the disease, the difficulty of breathing through the nose; he observes, that the latter was not constant, and that when free from it, children appeared to be in no danger; that the

difficulty of breathing was at other times so great as to require an attendant to watch a child sleeping and waking, in order to open its mouth as often as it might be requisite.

Dr. DENMAN further notices a singular purple streak at the verge of the eye-lids; which he afterwards considered in a manner pathognomonic of the disease; and indeed, I have rarely met with the disease without it. He describes also a general fulness about the throat and neck externally, taking place soon after the commencement of the complaint; which he seems to date from the appearance of the purulent discharge from the nose: though it has been remarked, that this symptom although one of the most formidable, may be entirely wanting.

That, when these symptoms had continued for some days, according to the strength of the patient and degree of the disease, children became pale and languid; and that upon looking into the throat, the tonsils were found tumified, and of a dark red colour, with ash-coloured specks upon them, and in some there were extensive ulcerations. The parts on which blisters had been applied in the beginning of the disease, and which had been apparently healed, often sphacelated towards the conclusion.

The infants (he reports) gradually declined in their strength, and had a particular catch in respiration, as if the velum pendulum palati were elongated. They were unable to suck, though not universally ; swallowed with difficulty whatever was given in a spoon ; and died in convulsions, or with all the marks of great debility, though not on any particular day of the disease.

Dr. DENMAN observes, that in the course of eight months he had attended eight children in this disorder, six of whom died ; that the body of one of them was afterwards opened by the late Mr. HUNTER and Mr. HOME, but that nothing was discovered, except that the membrane lining the nose was of a dark red colour, and its blood vessels more turgid than ordinary.

The true nature of the disease and consequently its appropriate treatment were for a considerable time but imperfectly understood ; and hence arose its frequent fatality. It would be superfluous, therefore, to take up the reader's time with an account of the means formerly made use of ; neither can it be necessary to add much to the more perfect, though hasty account, I added, to the last impression, by way of appendix. It need only to be observed, that Dr. DENMAN, by a fortunate occurrence, having discovered the true nature of this disease,

has in consequence, happily adapted a remedy that has proved an almost certain cure for it, if attended to in time.

The true source then appears to be a defluxion and inflammation over all that extent of *Schneider's* membrane lining the antrum *Higheimerianum*, posteriour nostrils, and contiguous parts. Hence, the copious secretion of purulent matter irritates the trachea, and produces that spasm, and croaking noise, with recurring sense of suffocation, so uniformly observed in this disease. By descending into the stomach and bowels, it disorders these parts; and if not very soon properly treated, induces such general disease as presently debilitates, and at an uncertain, but generally an early period, carries off the little patient, in the manner that has been already described. The stools, it may be noticed, are oftentimes thick and pasty, and when otherwise after repeated purges, they are of a peculiar green colour, or sometimes blue, different from what I have noticed on almost any other occasion.

From this account of the disorder, an attention to the state of the bowels, as I intimated in the first instance I had seen of it, is the manifest indication; but with this further light thrown upon it by Dr. DENMAN, that keeping

them very open, so as to prevent the lodgment of the matter falling into them, is the grand mean of cure: there being much less to be effected by absorbents and ant-acids to correct the constant sourness, and ill-condition of the stools, than by carrying them off speedily and frequently.

To this end, one or more tea-spoonsful of castor-oil should be given every day, so as to procure three or four motions daily. If a child should be weakened by this mean, which will rarely be the case, some cordial medicine should be occasionally interposed; or should this prove insufficient to support the infant, the purgative must be somewhat abated: but it is remarkable, that even weak infants endure purging better under this complaint than any other, unless it be the tooth-fever. If a convulsion fit should supervene, as it sometimes does, clysters, and the usual remedies for spasm should be administered, and especially the cordial; which breaking off wind from the stomach, and giving tone to the bowels, becomes a very useful one in this case. In several instances, a recourse to opium, or syrup of white poppies has been attended with good effect; and may in that case, be administered every night when the purgative has operated properly. Or a good medicine in many

cases, is DALBY's carminative, which may be given every six or eight hours; and particularly when repeated doses of the laxative medicine are given through the day. From eight to twenty drops, or more, may in that case, be given between each dose of the purgative.

Under such treatment, the morbid-snuffles has been found to yield in the course of two or three weeks; some purging medicine being continued as long as the discharge, or difficulty of breathing shall remain. It, however, sometimes runs on as much longer, and is attended with a spasm in respiration as if the infant were dying: this symptom, as well as the snuffling, often recurring some time after an infant has seemed to be cured. In such instances, besides purging, it has been thought useful to foment the bridge of the nose, and afterwards apply some aromatic liniment.

When the disorder is found not only to hang on for many weeks, (as it sometimes will where it has not been peculiarly violent) but together with the continued use of purges, to keep the infant pallid and feeble, notwithstanding the exhibition of cordial medicines; a recourse to the decoction of oak-bark has at once removed the snuffling, and given vigour to the child in the course even of a few days. A remedy that does not

seem to be sufficiently known for this, and many other complaints. Indeed, where a tonic medicine is found necessary, but where either from a febrile diathesis, or a disposition to glandular obstructions, the cortex peruvianus may be thought inexpedient, the oak-bark will generally be found a safe, and efficacious medicine.

It is necessary only to add, that though this disorder had never until very lately been met with after the month, I have seen it at a more advanced age, in one, or more instances, however, it has been thought, I know not how justly, that some slight symptoms of it had, in that case, appeared in the month.

INWARD-FITS.

IT has been already said, that any derangement of the first-passages is capable of giving rise to various complaints, among which, that of inward-fits, has lately been taken notice of by some medical people, but I think scarcely deserves the name of a disease. It demands attention, however, because so much has been said about it as to create apprehensions, lest this subtle disease should be insensibly at work, and making way for more severe, and outward convulsions.

This complaint may take place at any period of early infancy, and is said to be more dangerous the younger the infant may be. A constant symptom in this kind of fit, as it is called, is the infant's little mouth being drawn into a smile; which whoever has noticed must have beheld it with pleasure. And if the complaint extends no further than this smiling, which is generally in its sleep, it arises merely from a little wind, and is certainly harmless, because in this case, the wind is not really confined; and therefore an immediate recourse to emetics or purges, is more likely to do harm, by straining the stomach, or by relaxing the bowels, than to do any good. Every body is acquainted with the effects of different degrees of irritation of the nerves, from the sensation produced by tickling with a feather, to that of a hard gripe, or a violent stroke. The first may be said to be pleasing; and such, I doubt not, is the stimulus in question on the nervous coat of the stomach of little infants, and therefore produces so agreeable a smile, that I could never consider it any more as an indication of mischief, than of pain. Indeed, I know of no complaint that ought to be termed inward-fits; and I mention this, because nurses are continually talking to us about them, when children are perfectly well, and

often give the fond parent needless distress, as well as many an unpleasant medicine to the child. They are at the same time treating the true convulsion, whilst slight, in the same way, being led into the error by the idea of inward-fits; a term they are ever using, but have no precise ideas of, nor do any two of them, nor indeed, medical writers intend the same thing, as may be seen by so good an author as STOLL, in his late publication. It were therefore better, perhaps, the term were altogether abolished; as the child is either evidently convulsed, or has no kind of fit, at least none for which any remedy can be offered.—Infants, as well as adults, do sometimes, indeed, die suddenly without any manifest convulsion. But this more frequently happens after over-feeding, and arises from a spasm of the stomach, (of which I shall treat at large, in the chapter on true convulsions;) or sometimes of the heart or lungs; and infants may then be said to die of inward-fits, there being no external convulsions. Infants are likewise carried off suddenly from water in the head; of which I have lately seen two instances in the same family, (where the disease was ascertained by opening the cranium); both the children appearing perfectly well only a few minutes before they died: but neither of these occasions

are, by any means, the kind of affection usually understood by the term, inward-fits.—If the infant should sleep too long, and this smile should often return, the infant may be taken up, gently tapped on the back, and its stomach and belly be well rubbed by the fire; which is all that can be necessary. This gentle exercise will bring a little wind from its stomach, and the child will go to sleep again quietly.

This complaint, however, is largely treated of by some writers, and Dr. ARMSTRONG wishes to give a few drops of the wine of antimony; but it is very apparent, that when he considers it as worthy of more attention than I have just now advised, it is either a true convulsion, in which the eyes are distorted, and the mouth is discomposed, instead of putting on a smile, or else he is prescribing for another disease under the name of inward-fits, which former writers have treated under the head of disorders arising from costiveness and wind. But if this little turn of the features should arise from constant over-feeding, it were endless to administer emetics; the cause of the complaint is obvious, and upon the removal of it the remedy must rest.

Such has ever been my opinion of this much-talked-of complaint; and indeed, I have not to this day, after a good deal of attention to in-

fants, seen any thing sufficient to induce me to alter it; or I should (even in a former edition) have retracted the preceding observations. As I wish, however, to afford all the information I can on every complaint, I have to observe, that a gentleman of great respectability and experience, has conceived that though the term, inward-fits, has been often misapplied, there is really such a complaint, and that it generally proves fatal. Besides a little blueness of the lips, and slight turning up of the eyes, often noticed by nurses, this complaint is described as attended with a peculiar sound of the voice, (somewhat like the croup) and a very quick breathing, at intervals; and is supposed to arise from a spasm of the stomach, lungs, or other vital organ.— A spasm I have indeed too frequently seen, but certainly very different from that usually accounted inward-fits.

These symptoms are said frequently to attack the child in its sleep; and in their commencement will go off upon taking it up from its cradle. They are likewise observed to be induced by sucking or feeding, and to be increased upon any little exertion of body, or transient surprise, and in this manner to recur for a length of time, before they become alarming. The remedies proposed for the cure of this complaint are an

emetic, on the first attack, and afterwards volatiles and fetids; but, as it has been observed, very seldom to good effect.

It was not till after some time, that I could form any precise opinion of this complaint; not having met with it during many years close attention to the disorders of children. At length, however, instances occurred with all the precise marks of the complaint, as I noted in a former edition, and accordingly offered my opinion with a becoming diffidence; some cases being at that time pending. But during the last three years I have been further acquainted with this extraordinary spasm, and have succeeded in removing it, in every instance, by treating it as I had before hinted, as a chronical croup, by administering different antispasmodics; *asa fætida*, *ol. succini*, *tinct. fulig. musk*, or *cicuta* being prescribed as particular circumstances have indicated: and so far from its generally proving fatal, I have not been able to learn by the most diligent inquiries, that any child so affected, excepting one,* has been carried off suddenly, or by any thing resembling this complaint.

* This infant had very severe and repeated convulsion fits for several days, together with the croup, and was suspected to have water in the head. It appeared, however, to be at length perfectly recovered, so that Dr. REYNOLDS (who at-

Since the last edition I have seen the chronical croup more frequently in children of various ages, and indiscriminately in those nourished by the spoon, or the breast. I have known it attended with severe and repeated epileptic fits,

tended with me) and I had taken our leave for about a fortnight. The fits then returned, but were so slight that the apothecary only was sent to; But in one, the most slight of any, the infant almost in an instant expired, very much in the manner described by the gentleman above alluded to. But as infants not unfrequently die suddenly of hydrocephalus,* and as that, or some other morbid affection of the brain had been suspected, and the infant was not opened; the conclusion on either side is incomplete.

Should it be objected that, although this child had several true convulsion fits, at the same time that it was effected with the crouping noise, and that these returned after the croup had given way; yet it certainly died precisely in the sudden manner that infants are said to do of what has been termed infant-fits; and therefore neither this child, nor others who recovered under the treatment described, had a disorder that ought to be termed spasmodic croup, but where all ill of inward fits, although only one of them died suddenly as such infants usually do:—Should the whole, or any part of this reasoning be granted, (which in my opinion it ought not) yet is the term, inward-fits, equally improper, and no-wise descriptive of so singular a disease as is intended by it; and can only lead to an indeterminate use of a term calculated rather to obscure a dangerous disease than to lead to any good practical use.

* See the chapter on *Hydrocephalus*.

(and then the bowels have usually been costive, or the stools very clayey); but in every instance, the crouping has yielded, and (with the exception above-mentioned) children have continued well, treated all of them as for the chronical croup, which I still think to be the real complaint.

In regard to costiveness and wind, which have been said to be the parent of what nurses commonly term inward-fits, as they do not always arise from one and the same cause, and are productive of other complaints than those above mentioned, I shall consider them by themselves; which, it is presumed, will be pursuing a more rational plan, than adhering to a term obscure in itself, and indicative of a disease not well defined, and which therefore may tend to mislead the inexperienced reader.

DISORDERS *arising from* CONSTIPATION *and* WIND.

IT has been usual with ancient writers, when conciseness and accuracy were not so much considered as in the present day, to treat of costiveness and wind as specific complaints; and for the reasons aforementioned, it may not be altogether improper to comply with this custom.

CONSTIPATION is either constitutional, or accidental, which ought always to be distinguished, the former being oftentimes harmless; and, indeed, children of such a habit of body are frequently the most thriving. If the mother should be very constipated, her children generally are so; and such a disposition, (whilst they continue in health) ought not to be forcibly counteracted, though it will be prudent carefully to watch it. And this will be especially necessary, in the case of children who are subject to fits; fine lusty infants being often seized with violent convulsions, without any other apparent cause than a naturally costive state of the bowels, and as uniformly recovered from the fits, merely by procuring stools, and breaking off the wind. And this disposition to fits has taken place long before the ordinary period of teething, and has continued till children have been a twelvemonth old; at which time the solids, and especially the nervous system, have appeared to get stronger. In such habits, a quarter of an ounce of manna, or the like quantity of the syrup of roses, may be put into any liquid, and as much of it given by tea-spoonsful, as shall open the belly. Or should these prove insufficient, a dram of ol. ricini, may be taken two or three times a week: or a few grains

of the pulv. fol. fennæ, or its extract, with, or without, a dust of grated nutmeg, or cloves : or a few drops of the tinct. aloes comp. to infants of some months old. But it were needless to observe to most readers, that rhubarb will not be a fit purgative, though it be joined with magnesia, which will not sufficiently counteract its restridency, howsoever proper in certain cases ; though the observation may be proper, that nurses may be cautioned on this head, with whom it is so frequent a prescription, during the month ; and whose indiscriminate use of it is sometimes prejudicial. Rhubarb, or magnesia, alone, as the child is naturally costive, or otherwise, generally answering all the purpose intended, especially for very young infants ; whilst the union makes an unnecessary addition to the bulk of the medicine, which should always be avoided. A few grains of magnesia in a spoonful of dill, or common water, and sweetened with a little manna, or syrup of roses, forms a much neater medicine, (which may be quickened and warmed by the addition of a few drops of tincture of fenna) and in costive habits, which usually abound with acidity, answers very well in early infancy.

But if the child be otherwise in health, it has been said, it is, in general, inadvisable to do

much to counteract the natural habit of body.* I have formerly, even during the month, directed manna, to the dose of half an ounce at a time, to very little purpose, unless it was almost daily repeated, and have at other times given from three to five grains of jalap; till I learned, that there are some constitutions, even in infants, where the bowels cannot be kept open without a daily exhibition of some purgative medicine, and that many such children are as well left to themselves, or at least, require only to be watched. If a stool should be wanted, however, a suppository (or dry-clyster) made of a little slip of paper, or linen-cloth, twisted up, and well moistened with oil, may be very easily introduced, and will generally answer the purpose: or should this fail, a bit of Castile soap, mallow-

* I have attended in many families of numerous children, all of whom have grown up strong and healthy, but been uncommonly costive, and from their infancy have been for several days without a motion; nor would any gentle means procure it stately. And on the day when this note was made, I was consulted for an infant of only three weeks old, who had had no stool for five days, and yet was perfectly healthy and easy. This is not mentioned, indeed, to lead practitioners to abate of their attention to a costive habit of body in infants; but in proof only of its being in some instances innoxious, and therefore no cause of alarm as long as children are otherwise perfectly well.

root, red beet, or a parsley stalk, may be introduced in like manner. These means will be assisted, and a costive habit relieved, by rubbing the stomach and bowels frequently every day with a warm hand, or piece of flannel.

Should such a costive and windy state of the bowels produce griping pains, which may generally be known by the drawing up of the legs, or of the scrotum, and a certain manner of crying, it will be proper to apply external warmth to the stomach and bowels, by means of heated bran, or camomile flowers, put into a soft flannel-bag; which will both tend to abate the pain, and assist the operation of the laxative. Or should the costiveness be accidental, it must speedily be remedied; and if the occasion of it be an improper food, which is very often the case, the food must immediately be changed. If the child be not usually costive, rhubarb, it has been said, is often the best purgative, as it strengthens the bowels afterwards, infants being much more subject to an over-purging than to almost any other complaint, especially if brought up by hand. It sometimes happens, however, that much more powerful medicines than rhubarb may be required, whether the child be naturally costive, or not; and in such cases, much caution is necessary: for, where a proper dose of

senna-tea has proved ineffectual, it is surprising what large doses even of rough purges have been given in vain, or sometimes to the injury of the child. On such occasions, I would rather advise a recourse to clysters, and especially those made of succotorine aloes. From five to twenty grains, according to the age of the infant, dissolved in boiled milk, will rarely, if ever, fail of procuring a stool, and will often procure two or three, especially if preceded by the exhibition of a purge. But even drastic clysters should be administered with caution, and ought not to be very often repeated, especially to very young children; though less hazardous, in every view, than the frequent repetition of purges of a similar kind, and when used alternately with gentle purges, become expedient and beneficial.

Some writers, particularly the *French*, have much too frequently advised oil of almonds for infants of such a habit. Mr. LE FEBURE DE VILLEBRUNE therefore, in a note to the translation with which he has honoured my first edition of the diseases of children, testifies his preference to oils; but I must beg leave, in turn, to differ from him, being persuaded, there are few cases beside disorders of the chest, in which any kind of unctuous oil, but that of castor, will not be injurious to young infants, and particularly if

affections of the first passages.—It is dubious, however, whether oil of almonds, or of olives always proves a lavative, or whether by diminishing the natural force and action of the intestines, it may not frequently prove the reverse.

As there is usually too much acidity in the first-passages in costive and windy habits, a little magnesia may be given for a few days after the costiveness has been removed; and if the child be suckled, the nurse's diet must be attended to. If any flatulency should still remain, (which will not often be the case, if it has arisen merely from constipation) a little dill-water, is a very safe and gentle carminative; or should one more powerful be expedient, the fluid parts of the warm opening mixture directed in the chapter on purging may be given, without shaking up the vial. But if the flatulency be an attendant upon a lax state of the bowels and indigestion, its remedy will consist in the removal of those complaints, which will be noticed in their place.

It may be expected, however, that a word or two more should be said in regard to wind, which may likewise sometimes prove a real complaint, though it should not happen to be so confined as actually to become an occasion of fits. It is usually, indeed, but a mere symptom of some preceding or attending complaint; nor are its

troublesome effects either occasioned or increased by air taken in with the food, as many people have imagined; atmospheric air being essentially different from that produced by indigestion, whether owing to the weakness of the stomach, as it is called, or the improper quality or quantity of the food taken into it. It may however, in conjunction with other causes, prove a source of many complaints, and create watchfulness, startings, hiccoughs, vomitings, and even convulsions, if not timely attended to, especially if the infant be costive. A principal remedy in that case will consist in keeping the bowels open.

The only instances that I remember to have met with of wind proving of much consequence, when not preceded by other complaints, have been in very lusty new-born infants, whose mothers have also been peculiarly distressed by affections of that kind. This is, indeed, a somewhat anile way of speaking, but it states the precise fact; and one instance of an infant suffering in this way was so remarkable, that it may be worth noticing in this place.

In this case, the meconium began to pass off soon after birth, but not without repeated clysters, purgatives, and the warm-bath, and was peculiarly viscid, as well as in vast quantity. The infant, the meanwhile, appeared for several

days likely to be strangled, and was black in the face, merely through the abundance of wind in the first-passages; though it was breaking off both by the mouth and the bowels, and by that peculiar, and very loud noise, when it came upwards, observed oftentimes in the hysterical spasm of adults, and continuing, with only short intervals, for several hours together; so that the infant was several times thought to be dying. The whole face, except the nose, became exceedingly swelled, so that the infant could scarcely open its eyes, though without any discolouration of the skin; being probably owing to wind diffused through the cellular membrane, (as hath been known to happen in the case of a small wound of the lungs from a fractured rib;) the tumour subsiding immediately upon getting rid of the wind from the stomach and bowels.

These symptoms, however, yielded to carminative juleps, and purging medicines, (which is all that mere windy complaints usually require); and the infant after the meconium was all come away, was freed from every complaint, without any further semblance of fits, which before had been frequently apprehended.

VIGILIÆ, or WATCHINGS.

WATCHING, or want of sleep is frequently a symptom of the foregoing complaints, and in that case, may be removed by opening the belly, and afterwards administering some pleasant and carminative absorbent julep; which will then frequently act like an opiate,* by restoring rest. Sometimes, indeed, this succeeds so well, when given in large doses, that we are suspected of having really given some narcotic medicine; which doubtless, would in these cases prove exceedingly hurtful, as the watchfulness is generally a mere symptom, and not a disease; though when very obstinate, it is sometimes the harbinger of epilepsy, and then requires purgative medicines.

Watchings may arise from worms, purging, or gripings, whether from acrid breast-milk, or other food, and from indigestion, as well as from every thing capable of producing pain; each of which probable causes should be very attentively inquired into before we prescribe for the complaint, and will therefore be distinctly considered

* See HARRIS *De Morbis acutis Infantum*.

in their proper place. The usual source may, indeed, be said to be some default in the first-passages, and in very young infants is frequently owing to costiveness. I shall only observe further, if watchfulness be confined only to the night, it is probable the child sleeps too long in the day-time, which may be remedied by keeping it moving, and playing with it throughout the day ; of which little matters further notice will be taken in the part devoted to the *Management of Infants*.

APHTHÆ, or the THRUSH.

HAVING considered these lighter early complaints, I proceed to others which equally owe their origin to some affection of the alimentary canal, and are oftentimes of a more serious nature.

One of the most important of these disorders, is the Thrush ; a complaint that, probably, depends not a little upon the different natural habit of infants, as well as upon their management, particularly in regard to food, air, and the state of the bowels. This seems to be the case, inasmuch as the thrush is sometimes found to seize every infant in certain families, in whatever way the children may be managed ; as well

as to occur occasionally in others, upon a want of proper attention to the state of the alimentary canal, where a great number of other children, properly watched, have uniformly escaped it. Instances of the latter kind may have been noticed, where the mother happening to be ill, the whole attention of the family has been thereby engaged ; or, where one infant has been put out to nurse, whilst all the rest of the children have been carefully brought up at home.

It is amongst the vulgar errors, however, that the thrush is a very harmless complaint, or is even desirable to a child in the month ; for it is said, if it does not then make its appearance, it certainly will at a more advanced age, and will then prove fatal, or at least, attend the patient in his last illness. The fact is, it is a disease of debility, and therefore attacks very young, and very old subjects, especially if otherwise weakened. From the above mistake, however, the disorder is often neglected in the beginning, whereby the acidity in the first-passages is suffered to increase, which always aggravates the complaint. It is, indeed, a much milder disorder in this Island than on most parts of the Continent, (though, a priori, we might, perhaps, suppose it would be otherwise) particularly in *France*, where it reigns as a malignant epidemic,

especially in the *Hôtel Dieu*, and *Foundling Hospitals*, known by the names of *Muguet* and *Millet*.* The thrush, however, is as much a disease, as any other complaint that appears in the month, and is connected with most of the foregoing; a proper attention to which, it has been suggested, may very frequently prevent it.

This disorder is so well known, as scarcely to require any description, and generally appears first in the angles of the lips, and then on the tongue and cheeks, in the form of little white

* It has been already remarked, that several hospital diseases in *France* are more complex than with us, and possibly from their *Infirmaries* receiving a much greater number of patients than ours, and their apartments and beds being consequently less clean, as well as the air foul, and disposed to multiply contagion.

This is remarkably the case in regard to the diseases of infants, whose temperament is a singular union of debility and spasm, which the *French* have aptly termed *Laxité vibratile*.

The *Muguet* is a striking instance of the above mentioned tendency, it being altogether an hospital disease; which though distinguished by this name, appears to be a malignant thrush, and is frequently attended with a species of the infantile erysipelas.* When so accompanied, it is said to be constantly fatal, unless the hard and tumid parts terminate in benign abscesses, and suppurate kindly; which is rarely the case, they being more commonly found to mortify.

* See *Memoires de la Société Royale de Médecine*, anno 1779.

specks. These increasing in number and size, run together more or less, according to the degree of malignity; composing a thin, white crust, which at length lines the whole inside of the mouth, from the lips even to the œsophagus, and is said to extend into the stomach, and through the whole length of the intestines; producing also a redness about the anus. When the crust falls off, it is frequently succeeded by others of a darker colour: but this is true only in the worst kind of thrush, for there is a milder sort, that is spread thinly over the lips and tongue, which returns a great many times, and always lasts for several weeks. I have seen this so very often the case, that when I observe a child to have the complaint very slightly, and that it does not increase after two or three days, I venture to pronounce it likely to continue a long time, but that it will be of no consequence. Care, however, ought to be taken that the child be not exposed to cold.—It is an old observation, and there is some foundation for it, that very long sleeping in the course of the first week or two, is often a forerunner of this complaint.

The thrush, in its commencement, is said to be generally attended with fever; but those who have been of this opinion, do not seem to have made what is a very necessary distinction, since

I have, by no means, found this to be the case where the thrush is an original disease. When consequent to severe bowel complaints, erysipelas, and other infantile disorders, it is, indeed, often accompanied with fever, and when so, proves either favourably critical, or the infant usually sinks very soon. In ordinary cases, however, I am confident in nine out of ten, there is not the least fever, though the mouth is often so much heated as to excoriate the nipples of the nurse, and become so tender, that the child is often observed to suck with reluctance and caution. In very bad kinds of thrush, it has been hinted, a fever may attend; but even here it does not appear at the commencement of the complaint, but rather towards the close; the fever also being of the low kind. And this is owing to the general ill health induced by the morbid state of the gastric juices and alimentary canal, in the same manner as the common hectic fever is induced by the long continuance of other bowel complaints.

ZUINGERUS,* indeed, gives an instance of fever accompanying this complaint; but it was in a child of four years of age, and the thrush not the original disease. Symptoms of slight in-

* THEOD. ZUINGERI, Archiatri Basil. *Pedajatreja Practica*, 1722.

flammatory fever had preceded the thrush, which appeared a little the next day, and both that and the fever were increased the day after. On the third, both were considerably abated, and on the fourth day the child was perfectly well.

It has long been a received opinion, that the thrush must appear at the anus, and many people will not allow it to be cured if it does not, and for the like reason, they always suppose it to be going off when this redness takes place. But the truth is, that its appearance there is only a mark of the degree of the disease, or of the acidity that occasions it, and not in the least of its cure; and is not, therefore, generally to be wished for. The redness about this part is occasioned by the sharpness of the secretions in the bowels, and consequently of the stools, which slightly inflame and sometimes excoriate the parts about the anus, and in a bad thrush will do so long before the complaint is going off; but in the lighter kind, no such effects are produced, or are, at least, very slight. And, indeed, this redness has been so often mentioned to me as an indication that infants must, unobserved, have already had a slight thrush, or, according to others, be likely to suffer by it very soon, where children have, nevertheless, escaped it altogether; that I have ventured to imagine such infants may

be least of all liable to it, if otherwise in good health, at least, my experience seems to support that idea. And I have even conceived, that the acidity of the first-passages being in some children more confined, may prove a remote cause of such infants being troubled with the thrush; whilst others by an open belly, and stronger viscera, may escape it, at the expence only of this foreness of the external parts, which often continues for several days. And this has led some people, on the other hand, to call this simple redness, the thrush, and we therefore often hear it said, that children have had it only in this part.

A PRINCIPAL remote CAUSE of this disease, seems to be indigestion, whether occasioned by bad milk, or other unwholesome food, or by the weakness of the stomach.—Perhaps thick victuals, particularly if taken hot, and made very sweet; also covering the face of the child when it sleeps, or its breathing the confined air of the mother's bed, may be amongst these causes, and ought therefore to be avoided.—The proximate cause,* is the thickness, or acrimony of the juices

* If such a term, after all that GAUBIUS and later professors have advanced, may be used in any sense distinguishable from the disease itself, it is presumed, that the circumstances enumerated may be distinguished from those termed *remote* causes. Should this not be allowed of, the term,

secreted from the glands of the mouth, fauces, stomach, &c. producing heat and forenefs in these parts.—A tea-spoonful of cold water given every morning has been thought a good prophylactic: but keeping the bowels duly open, is certainly a much better.

The means of CURE must be sufficiently obvious, if due attention be paid to the nature and occasion of the complaint. As a general observation, it may be said, that when the thrush attacks robust infants of a costive habit of body, it is easily cured, and indeed requires nothing more than keeping the bowels well open; for which purpose, the daily exhibition of castor-oil is, usually, the fittest mean. But on the other hand, the complaint is attended with some hazard in delicate infants whose bowels have been previously weak, and especially where the child is nourished

proximate cause, seems to be perfectly useless, and one to which we can never affix any precise ideas; the *cause* and the *effect* being confounded.—But I do not mean to enter far into such a controversy, and have touched upon it rather by way of apology for the use I have made of the term, in this and other parts, and to mark an obscurity which I leave those to settle whose province it may be to take the lead in such matters. It were well, however, if some able pathologist could affix some idea that might be universally adopted, so that when we meet with the term in different authors, no reader might be at a loss for the meaning.

only by the spoon. Much has been said in favour of emetics, especially wine of antimony, as being almost a specific for this disease, but I cannot say it has proved so with me,—unless in the slight cases just mentioned; nor can I see any sufficient cause for departing from the more ancient practice, in the treatment of this very common complaint.

There can be no objection, after having properly opened the bowels, to administering an emetic, and where the thrush is of a dark colour, and the whole inside of the cheeks is lined with it, I am persuaded, it may be useful, by emptying the stomach of the crude juices oozing into it from the glands of this part. But, I think it would be almost as endless, as it would generally be prejudicial, to persevere in the use of emetics, for days, and even weeks together, and is both a severe, and an unnatural method of treating a tender infant, in which the bowels are always the most natural outlet for its complaints; on which, therefore, nature uniformly throws the offending matter on almost every occasion, as appears plainly in teething, in which the first-passages cannot be primarily affected. Should the *vinum antimonii*, indeed, be deemed useful otherwise than as an emetic or purgative, and by any alterative virtues capable of removing certain

morbid actions of the glands seated in the first-passages, a recourse to it would certainly be rational; but I have myself had no such evidence.

I believe, therefore, that where there is no fever, nor any uncommon symptom, testaceous powders are the best and safest remedy; which may be joined with a little magnesia, if the body be costive; or if in the other extreme, and the child is very weakly, two or three grains of the compound powder of contrayerva in its stead. Some such preparation should be administered for three or four days successively, and afterwards something more purgative, to carry down the scales as they fall off from the parts. For this purpose, rhubarb is generally the best; but when the thrush is very violent, is of a dark colour, has come on very rapidly, and the child is lusty and strong, a grain or two of the pulv. è scammon. cum calomel: * may be joined with it, agreeably to the idea of HEISTER, and the testaceous powders be repeated for two or three days

* A very good method of administering this powder, and other metalline preparations, is that first mentioned by Dr. *Armstrong*, by directing them in the form of a pill, which may be broken into small pieces, and given mixed up with the child's food; by which means, they will not precipitate, and be left at the bottom of the spoon, as is sometimes the case when such remedies are administered in powders.

as before, till the disorder begins to give way. On the other hand, when an infant with this bad thrush is weak and delicate, a decoction of the bark, with aromatic confection is found the best remedy

The choice of the testaceous powders, on which some writers have said so much, is, I believe, of very little importance: the purest and softest are preferable. The design of these medicines, being to absorb and correct the predominant acidity,* their effect will be discovered from the kind of stools that succeed, and the dose may therefore be increased or diminished, or they may be altogether discontinued, as circumstances direct. In the mean time, if the child is suckled, the nurse's diet should be attended to, and in general, her usual quantity of porter or ale, (which is almost

* The *French* physicians are of opinion, that the thrush is owing to what they call a putrid alkaline humour, or something analogous thereto, rather than to an acid. But this cannot be the case in the ordinary thrush, as is manifest both from the appearance, and the sour smell of the stools, as well as from the more certain remedies for the complaint, which are alcalis and absorbents.†—The malignant thrush, (already hinted at) which appears in some of their crowded hospitals, is certainly a very different complaint, and seems indeed, to be of a putrid nature.

† See the *Introduction* to the Third Volume, where these evidences are fully considered.

always more than sufficient) should be diminished.

In regard to applications to the part, it is necessary to observe, that as they have little to do in curing the complaint, it will be improper to have recourse to them very early. I know, indeed, it is very common to begin with them, but they serve only to increase the soreness of the parts, (especially in the manner they are generally used) and to give a deceitful appearance of amendment. The proper intention of these remedies, at this period, is merely to preserve the infant's mouth clean and comfortable, and to prevent as much as may be, any pain or injury to the wet-nurse. If therefore the inside of the cheeks and tongue are thickly covered with sloughs, it may be convenient to clean the mouth two or three times a day; but it will in general be improper, till the complaint is past the height, the sloughs disposed to fall off, and the parts underneath inclined to heal; which never takes place till the secretions in the first-passages are become bland and mild. Proper applications will then have their use, not only by keeping the mouth clean, but by constricting and healing the raw, and tender apertures of the excretory vessels.

I have, indeed, met with an instance of a very copious thrush disappearing after cleaning the mouth with borax and honey, at noon and night on the fourth day of the disease. Until this time it had been increasing, and I expected would become worse; and therefore directed the mouth to be cleansed so early, only to render the infant comfortable, and to prevent as much as might be any inconvenience to the wet-nurse. There was but very little appearance of thrush, however, the next morning, and not the least after that day. It is, therefore, likely, that the parts were rendered perfectly clean by the help of the borax somewhat sooner than they otherwise would; though I can, by no means, conclude that it had any other share in the cure.

The like observations I have had occasion to make in regard to an exceeding slight appearance of thrush, which had continued in the same state for three days; but upon being cleared off by once using the borax and honey, never re-appeared. In both cases, the usual internal remedies were administered both before and after the recourse to topicals.

Of the latter of these also, a variety have been in use, in the form of lotions and gargles, which from the earliest times have all been of an astringent nature; and it scarce needs be added, should

be of an innoxious kind ; as some portion of them will be swallowed : and I mention this because STOLL reports, that the *English* advise a solution of sacch. saturni, which for my own part, I never heard of before. Honey of roses and spirit of vitriol, or of sea-salt, as recommended by ET-MULLER and Dr. SHAW, form a very good one ; but nothing is preferable to borax, which some advise to be mixed up with sugar, in the proportion of one part of the former to seven of the latter ; a pinch of this put upon the child's tongue will be licked to all parts of the mouth. But I prefer a mixture of borax and common honey, (two scruples, a dram, or even more of the former, to an ounce of the latter,) which hangs about the fauces better than in the form of powder. Either of these may, at this period, be made use of as often in the day as shall be necessary to keep the parts clean, which they will effectually do, without putting the infant to pain, by being forcibly rubbed on.

It only remains to take notice of the black thrush, as it is called, which is confessedly a very uncommon complaint in the infant state. The late Dr. ARMSTRONG said he had never met with it among the great number of children brought to his dispensary. I have seen only two instances of it which were in strong and healthy

children ; but the parts were not perfectly black, and if that be intended by the name, these cases might not be precisely that complaint: they, however, both proved fatal. After the stomach and bowels have been cleansed, I believe the decoct. cortic, and confec. aromat. as before mentioned, with the addition of tincture of snakeroot, is the most likely medicine to be of service. The bark especially should be administered very freely, and the bowels be kept open ; which is more safely done by rhubarb, than any other purge.

APHTHA GANGRENOSA.

THE Aphtha Infantum hath been generally regarded as an idiopathic disease ; but I believe, that every other species of the aphtha has been considered either as purely symptomatic of fever, dysentery, &c. or as a critical termination of some acute disorder. The apthous affection, which I am now going to describe, does not, however, seem to be the consequence of any preceding general disease ; and I am inclined to believe, that it is the cause, rather than the effect of those febrile symptoms which accompany what I shall call by the name of aphtha gangrenosa.

This disease most commonly attacks children that are above two years of age, and I believe, rarely after nine, unless by infection. Its first appearance is marked by a very spongy state of the gums, and a remarkable tenderness of the inside of the cheeks and mouth. Soon after this, little apthous sores, having a dark coloured surface, appear upon the gums, the inside of the lips, and upon the tongue: sometimes, similar ulcers are seen upon the uvula and tonsils; but this is not always the case. As the disease proceeds, the cheeks become slightly tumified, and are very tender when touched; and there is often an unusual redness upon that portion of the skin which covers the lower jaw. Besides the apthæ which appear upon the tongue, that part is usually much furred, and the teeth about the edges of the gums are likewise covered with a blackish fur; the breath is very offensive, and at this period, the disease is highly infectious, even to adults. In the progress of this complaint, the sub-maxillary glands become enlarged, and slightly painful; and there is generally a preternatural flux of saliva, which is sometimes discharged in considerable quantities from the very beginning of the attack. Sometimes the angles of the mouth are found to be

ulcerated, but this is, by no means, a common appearance.

The gangrenous thrush is always accompanied with considerable languor; and sense of debility; an increase of heat; a small quick pulse; the appetite is impaired; but the children do not sleep ill, and they are often chearful and active, at different parts of the day.

The disease does not observe any exact periods; some children recovering in a fortnight, while others have been more or less affected from a month to six weeks.

Formidable as the appearance of this disease may be, it is not found to be dangerous, and the remedies are obvious. The Infus. cort. Cascarillæ, warmed with HUXHAM's Tinct. cortic. Peruv. should be exhibited three or four times a day, in doses suited to the age; and the parts frequently washed with the decoct. cort. Peruv. rendered as sharp with the acid. vitr. dilut. as children can bear it.

ERUPTIONS *on the* SKIN.

IT is, by no means, my intention to enter largely into this extensive subject, but imperfectly understood, perhaps, even to this day, at least in regard to classification and arrangement;

though in respect to children, sufficiently plain to every practical use. In another part of the work I shall treat of the scall'd-head, and two or three other troublesome affections of the skin, but shall at present chiefly confine myself to eruptions peculiar to infancy ; adverting first of all, to such as are connected with the state of the first-passages. The earliest of these, is

SCROPHULUS, or RED-GUM.

THIS is an efflorescence appearing usually in small spots, often confined to the face and neck; but at others, it extends to the hands and legs, and even the whole body, appearing in very large patches, and sometimes raised above the surface. It will likewise appear in the form of small pustules, which are filled with a limpid, or sometimes a purulent, or yellow liquor, and frequently turn dry and horny, and scale off; at least, I have never known what name to give this kind of eruption, but that of a *rank* red-gum, as it happens only in the month, or soon afterwards, and never gives any trouble. There is another species as small as pins heads, or even their points; firmer than the former; often of a pearl colour, and opake, which has generally been accounted a kind of red-gum; but it has

of late been suggested, might for distinction sake, be termed the *white-gum*.* Every species of this eruption, like the thrush, is the effect of a predominant acid, but can scarcely be termed a complaint, being a kindly exertion of nature to throw off some acrimony; consequently an evidence of the strength of the constitution, as the thrush is, usually, of its weakness. In the former, nature throws off the offending matter on the surface more completely than in the latter, and therefore, when the eruption is slight, requires no assistance.

On this account it is, I apprehend, that writers have not usually taken notice of it, though it should seem requisite, both on account of the various appearances of it, and especially of one species more rank and extensive than the rest. In general, it is necessary only to give a little testaceous powder, or magnesia, according to the state of the bowels, and to keep the child moderately warm; otherwise the rash striking in, the acrimony will fall on the first-passages, and be succeeded by sickness, or purging, (till the eruption appears again on the

* It is to this complaint, that VOGELIUS seems to give the name of *achores*; but the old writers differ in this respect, of that complaint, however, more will be said in another place, when speaking of disorders described under obsolete terms.

skin) or not unfrequently by the thrush, or a slight return of it, if the child has lately recovered from it. In the case of sickness at the stomach, or any disposition to fits, upon this eruption, being repelled, some light cordial, such as a few drops of the spirit. Ammoniae comp. should be given two or three times a day, and the child's feet, or perhaps the whole body, be put into warm water. The state of the skin, and the bowels have a peculiar consent, and on this accounts, infants whose first-passages have been frequently disordered, are always benefited by eruptions on the skin; and in such, peculiar case is necessary to guard against their being repelled, as well as to invite their return.

Infants are peculiarly liable to various anomalous kinds of rash, both in the month, and till the period of teething is over. The early ones may be regarded as a sort of red-gum, and children who are most subject to them, generally have their bowels in a better state; the rash carrying off, as has been said, the acidity* with which they so much abound.

It may be remarked, however, that when infants at the breast are inclined to frequent returns of some eruption, if the child be always

* See HARRIS, pages 22, 23.

indisposed at such seasons, the rash will often be found owing to some ill quality in the breast-milk, which ought therefore to be examined, and particularly in regard to its taste. On such occasions I have found, that milk which has been above a twelvemonth old has contracted a *very unpleasant* flavour; and that upon changing the wet-nurse, a very ill-looking rash has immediately abated, and has soon afterwards entirely disappeared, together with the other complaints.

One species of these early rashes often takes place about the time of teething, and not unfrequently at the decline of fevers, or severe bowel complaints; insomuch that, upon a sudden appearance of it during a serious illness, I have often ventured to prognosticate the recovery. This rash very much resembles the itch, both in regard to the little watery heads, and foul blotches; and is confined to no particular part of the body, though it appears more frequently about the face and neck. Indeed, I have seen the whole body so covered with it (mixed with an eruption about the face, of a different appearance, and evidently red gum) that in a consultation, it has been by some taken to be the true itch. This eruption is certainly salutary, and even critical, requires nothing but to avoid taking cold, and is

mentioned only because it is not uncommon, and has alarmed such as are unacquainted with it.

But there is a very common rash that calls for more attention, and to which medical writers have given the name of *Crusta Lactea*, or *Lactumen*, which has a very unpleasant appearance, but is, notwithstanding, equally innocent with the former, and even prevents other complaints. I think I never saw an infant much loaded with it, but it has always been healthy, and cut its teeth remarkably well. Indeed, it falls to the lot of the finest children, and such as are well nourished; whence some have imagined it owing only to the richness of the milk.* And it is remarkable in this eruption, that howsoever thick and long continued the scabs may be, the *crusta lactea*, never excoriates, nor leaves any scar on the parts. It may, possibly, be different in some other climates, though I cannot guess for what reason it should be so on the continent: it is insisted upon, however, by Dr. CAROLI STACK, as well as, that children long affected with it become unhealthy. He recommends the *viola tricolor*. Linn. of which a handful of the fresh, or half a dram of the dried leaves, is directed to be boiled in half a pint of cows milk,

* See ASTRUC.

and strained off. This quantity of the decoction is to be taken night and morning.

The crusta lactea appears first on the forehead, and sometimes on the scalp, often extends half-way over the face in the form of large loose scabs, which as the disorder increases, appear not very unlike the small-pox after they are turned. It begins with white vesicles, larger than the itch, which soon become of a dark colour; to which succeed the scabs, with efflux of ichor, and great itching of the affected parts, sometimes covering the head, and it is, very improperly, said by some, the whole body. It is also said to degenerate into the scall'd head;* but I have never seen any thing like the true tinea in young infants. It is sometimes confounded with the crusta serpigiosa, which is a much more obstinate complaint.

Very little, I believe, is necessary to be done; but in bad cases a perpetual blister is sometimes of service; and, further, usually answers the grand purpose of abating the itching, which in some instances is exceedingly great: for this end, however, the repetition of a blister, if needful, is preferable to keeping one constantly open. If the urine becomes turbid, or fetid, it is

* *Traëtatus de Morbis Puerorum. Amstolodami, 1760.*
Anonymous.

thought the rash will be of short duration. At any rate, it usually disappears of itself when the child has cut three or four teeth, though it may sometimes continue for several months, and in a very few instances, even for years: in such cases, the *Harrowgate*, or any other sulphureous water will have a good effect; but the shop-medicines commonly prescribed do nothing. I have known testaceous powders, calomel, and other alteratives administered to no purpose, as people of rank are very anxious to have it removed, if it be possible. This rash will now and then make its appearance very early, and has then been mistaken by those who are not much accustomed to very young children, for the effect of the venereal disease. Though it has been said, that it usually dies off upon cutting some teeth, I have known it disappear suddenly previously to any teeth being cut, and after some weeks become more violent than ever; infants remaining all the while in perfect health.

It were almost endless to enumerate the various kinds of rash to which infants are liable, but I mean chiefly to confine my remarks to the more important, or rare ones, and such as may not have been described by preceding writers. Among such are the following, whose un-

usual appearance is apt to perplex such as are not accustomed to see them.

The first I shall notice, appears chiefly in teething children, very much resembles the measles, and has been sometimes mistaken for it. It is preceded by sickness at the stomach, but is attended with very little fever ; though the rash continues very florid for three days, like the measles, but does not dry off in the manner of that disease. It requires nothing more than the testaceous powders, or sometimes the addition of a little nitre and compound powder of contrayerva ; with a dose or two of rhubarb, or other gentle laxative, on the going off of the rash.

At this period, especially whilst the double or eye teeth are cutting, I have noticed a rash which at its first appearance is very similar to the above, and has likewise been mistaken for the measles. It, however, soon spreads into larger spots and patches of a bright red, and afterwards of a darker hue, resembling the ill-looking petæchiæ which appear in bad fevers ; but is, nevertheless, of a benign nature. It is indeed, attended with some fever, arising possibly, from the irritation occasioned by teething, and has been followed by small and hard round tumours, on the legs, which softening in two or three days, always appear as if they would suppurate, though I believe

they never do; as will be further noticed in a similar appearance of boils, under the head of fever.

The treatment, like that of other rashes at this period, is very simple, requiring little more than an attention to the state of the bowels, or, perhaps, a few grains of the compound powder of contrayerva, unless the fever be considerable, which must then be treated according to the directions given under the different heads of fever, and dentition. Should the lumps succeeding this rash, not begin to die away in three or four days, a decoction of the bark will be found useful, when the fever of dentition may not forbid a recourse to it.

I have seen a third kind of rash, in appearance resembling the measles, and like it covering the whole body, but with larger intermediate patches like the eruption in the scarlet fever; which is mentioned more for its uncommonness, which might prove alarming, than for its being at all dangerous, or important. It was, however, in every instance, preceded by sickness, by purging, pain, and a little fever; the whole subsiding upon the appearance of the rash, which therefore seemed to be critical, or at least, like some other eruptions, consecutive to convalescence.

I have two or three times during dentition, noticed a rash that has so exactly resembled flea-bites, having even a depressed point in the middle of the elevated spot, that I could not be persuaded by the nurses account that it had not been occasioned by the sting of some such insect, until I had made repeated observations, and found it recurring uniformly a little before a tooth has been cut.

An eruption still less frequently met with than most of the above, appears after children have cut all their first teeth. I know not what name ought to be given to this kind of eruption, which breaks out in the form of round lumps, as large as middle-sized peas, very hard, with a very red base, and white at the top, as if they contained a little lymph.

They come out suddenly without previous sickness at the stomach, are not sore, disposed to itch, nor ever give any trouble, and are seldom seen but on parts that are usually uncovered, and are sometimes there in great numbers, resembling the distinct small-pox ; but are harder, more inflamed, and less purulent.

Alarming, as well as unusual, as this appearance may be, I believe the eruption is always perfectly innoxious, if not repelled by cold, or improper treatment ; and will dry away in three or four days : nothing more being necessary than

the little remedies, directed for the former, and to keep the child within doors, if the weather be cold.

An eruption of an appearance equally uncommon, and analogous to the above, I have met with only in children of at least three or four years of age, and such as have also been affected with slight symptoms of scrofula; though I have not seen it frequently enough to ascertain its being, in any degree, owing to that specific virus. It breaks out suddenly, covering at once the greater part of the body, but occasioning neither pain nor itching; nor are children sick at the stomach nor otherwise ill with it, though it lasts for two or three weeks.

This eruption, therefore, like some others, is taken notice of chiefly for its singular appearance, which, though somewhat like the nettle-rash, is of a different figure, but may be pretty exactly conceived of by the little red lumps sometimes left by the small-pox, after they are turned, and also rubbed, or picked off, especially after the chrystalline or warty species, and where the pustules have been pretty numerous,

If the first passages are at all disturbed, my attention is principally directed to them, otherwise to the state of the skin; and in this case, I have usually directed small doses of the pulv. an-

timonial. to be taken for a few nights at going to bed, and the polychrest salt and rhubarb, occasionally, in the course of the day, with, or without, the addition of the aqua ammoniæ acetatæ.

In the course of a few days the eruption puts on a darker colour, is less prominent, and begins to scale off in a branny scurf, somewhat like the measles: but should no such change take place, the vinum antimonii should be taken two or three times a day; to which, if no amendment should soon be perceived, a few drops of the tinctura cantharidis may be added; a remedy often very efficacious in disorders of the skin, but should be administered with caution.

An eruption with every appearance of the *nettle-rash* sometimes occurs in children, and more generally under two years of age, and is exceedingly troublesome to the infant, as well as matter of surprise to those about it, from the suddenness of its appearance. Children going to bed perfectly well, wake very uneasy, and frequently continue screaming, for some time, before the cause is discovered; when upon examining the body, and the lower limbs, they are found covered with large wales, resembling those arising from the sting of nettles.

The Essera, or Nettle-rash, is attended, per-

haps, with the slightest of all fevers, though its accession is sometimes preceded by rigor, sickness at the stomach, and pains in the head; especially when the sudden consequence of exposure to a very cold wind in athletic youths; but is never dangerous, and only where it may happen to continue a very long time can demand particular notice. The nettle-rash of *infants* is of still less importance; and the species now under consideration requires less than any other, and, indeed, often disappears in a few hours. When it continues longer, a few grains of the pulv. contrayervæ comp. or other of the milder absorbent powders, with, or without a few drops of the spirit. ammoniæ comp. may be given two or three times a day, and the bowels kept open.

This is probably a milder species of the nettle-rash. When the body is more covered with it, and it continues long, a little more care is required to prevent its being repelled; and if it should, the tepid bath, and light cordials, as before mentioned, should be had recourse to, in order to procure its return to the surface; which is always of the greatest consequence if the child should continue unwell.

In athletic youths, it has been noticed, the nettle-rash is sometimes attended with the usual symptoms of fever; during which, the patient

should be confined to the bed. It will also in some instances become chronical, and is then not always easy of cure. The following has in such cases been often found useful.

℞. Hydrarg. sulphuris rubri ʒ β Radic. Serpentar. Virg. pulv. ʒj. Syrupi simpl. Q. S. ut fiat bolus, bis die sumendus; superbibendo haust. Infusi flor. sambuci.

Amongst rashes attended with some little fever, there are various anomali, and one resembling both the above, and the febris scarlatina, but without the marked symptoms of the latter, or drying off in branny scales in the usual manner of that eruption. The form and colour of the rash and degree of fever, however, are more of that kind, than of the nettle-rash.

Another rash, or rather eruption, takes place both in bowel complaints and in teething, resembling the pemphylus of adults, but seems rather to be what the old writers have termed phlyctænæ, or phlyctides, and always appears to be beneficial. It consists of vesications or blisters, of different sizes, resembling little scalds or burns, and continues for several days. They come out in different parts, but chiefly on the belly, ribs, and thighs; and contain a sharp lymph, which it may be prudent to let out by a puncture, with a needle, especially from the

larger ones. No medicine is necessary but such as the particular state of the bowels may call for, which usually abound with acidity whenever there is much eruption on the skin.

An eruption, vulgarly termed scorbutic, infesting the face and neck, and discharging a sharp ichor that excoriates wherever it runs, and difficult of cure by chemical alteratives, will often yield in a short time to the expressed juice of the *sium aquaticum*. From one, to four or five table spoonsful may be given, mixed with one or more spoonsful of new milk, three times a day, according to the child's age, and the state of its stomach; taking care, at the same time, to keep the bowels open by senna-tea, or other common laxative.

I have several times met with an eruption resembling the *psora* of the *Greeks*, or what is called amongst us, the Grocer's-itch; whether depending at all upon the weather, it is difficult to say; but it is remarkable, that I have seen it chiefly during a cold season, and have then usually met with several children affected with it about the same time. It often begins about the arms and thighs, but always extends soon afterwards to other parts, and frequently spreads quite from the head to the feet.

It appears in some parts in very small erup-

tions like the points of pins, with watery heads, and in other parts, as large as peas, and sometimes in foul blotches, which after breaking, form fores, and broad, ugly scabs. These die away, and the like appear, successively, in other parts, sometimes for two or three months, leaving the skin of a dirty, adust hue. In other parts, the eruption is in the form of small, hardened pimples, which do not break, nor are at all fore to the touch.

This eruption appears alike in children who have cut all their first teeth, and in infants at the breast; though I have happened to see it, I think, more frequently in teething children, and it then seems to be connected with dentition. And this has appeared pretty evident, because, previous to my being acquainted with the remedies best adapted to the complaint, children who had taken a variety of medicines, and continued to break out in fresh places, suddenly got rid of the eruption altogether upon my lancing the gums, and three or four teeth in consequence coming through.

When this eruption has appeared in infants at the breast, I have several times known the suckling mother or nurse, in a few weeks afterwards break out in like manner with the child; but whether by accident, or from contagion from

one to the other, I was for a long time unable to ascertain; but having of late found it spreading to others who have slept with the nurse or child, I have now no doubt of its being contagious, in that way; though not by a more distant intercourse.

I was for a while much puzzled with this ill-looking eruption, the long continuance of which could not fail to be very distressing to the parents, and as even caused a suspicion to rest on the wet-nurse; the eruption being sometimes suspected to be the itch, and at others venereal; which it certainly is not.

It has been always benefited for a while by washing the parts with two drams of the aqua kali puri in a pint of water; which I would always recommend, though it will not alone effect a cure. Various internal remedies also, which remove other eruptions, have generally failed in this, such as the hydrargyrus cum cretâ, and hydrargyrus cum sulphure, given in large doses; as also the fum aquaticum. The external application, however, of an ointment consisting of the unguentum sulphuris, and unguentum hydrargyri nitrati, with a greater or less proportion of the latter, has hitherto never failed me, together with the internal exhibition of one or other of the forementioned remedies.

In some of the more obstinate cutaneous affections, and particularly in this, I have noticed a spontaneous purging taking place upon the decline of the rash, and have always accounted it a good sign; having never observed the child to be weakened by the purging, though it has sometimes continued excessive for two or three weeks.

I shall close this account with the description of an eruption that is singular enough, resembling very much the herpes, or broad ring-worm, or the adust-coloured spots left on the face after an attack of St. Anthony's fire. I have seen it in various parts, but I think only on such as are more or less liable to be fretted by some part of the infant's dress, especially on the nates and contiguous parts covered by the cloths; where the blotches are always the broadest and most rank. Were it to appear no where else, it would seem to be occasioned by some sharpness of the urine and stools, as the skin has sometimes a very heated appearance, though the eruption, I believe, is not at all painful. It frequently breaks out before the period of teething, but the bowels are generally somewhat disordered, and the stools voided very green, or else become so very soon afterwards. This I take to be one of those eruptions occasioned by

some bad quality of the breast-milk, as, I think, I have never met with it but in young infants whose nurses milk has been old, and has also contracted a very disagreeable taste. If that should not be the case, the rash will probably require nothing but the light absorbent medicines before mentioned, and to guard against constipation. But if these means should not succeed in a short time, the nurse ought to be changed, lest some worse consequence should ensue, as will be noticed under the head of convulsions.

In all the eruptive complaints of infants, taking cold ought to be carefully avoided, and great caution be used in regard to all external applications, as well as keeping the belly open. If the child is sick at the stomach, a little magnesia, or testaceous powder, with, or without, the addition of the pulv. contrayervæ comp. may be given now and then; or should the rash be hastily struck in, and the child be ill, the remedies before mentioned should be had recourse to. The reader is reminded of this, from the great importance of attending to such retrocession; as I have known it, in a previously healthy child of only six months old, followed not only by vomitings and purging, but by a rapid decline; and upon examining the

body after death, the lungs have been found as replete with tubercles, as I have ever seen them at a more advanced age. Instances of so great marks of disease have, however, occurred to me only in families inclined to scrofulous, or hectic affections.

Should any scabs become very dry and hard, which the *crusta lactea*, for example, will sometimes be, especially when they extend to the crown of the head, and seem to give pain, they may be touched with a little cream, or with oil of almonds mixed with a few drops of the *aqua kali*; but not a large surface at a time. Or should they be very moist, and cause pain by sticking to the cap, they must be dusted with a little common powder, or with the *flos sulphuris*, and covered with a singed rag; but I should be very cautious of doing much more with desiccative applications, for the reasons above mentioned, especially during the time of teething.

SORE EARS.

SLIGHT blisters and ulcerations behind the ears of infants are very common, and in general require only to be washed with cold water, or covered with a singed rag, to keep the cap from sticking to them, and thereby giving the child

pain. They are moreover, very often beneficial, especially during bowel complaints, or the eruption of the teeth; and will sometimes get well and break out again into very foul sores, several times, without any cause of alarm. But there is in some children of a gross habit of body, and especially about the time of teething, a species of ulcer that often requires attention, on account of its extending low down in the neck, occasioning great pain, and spreading into large and deep sores; insomuch that a gangrene has sometimes came on, and even the *processus mastoideus* become carious. Here fomentations will be necessary, especially those of bark; and its powder should be administered internally. Such cases, however, do not often occur; but whenever the sores are large and painful, fomentations of white poppy heads boiled in milk, will be beneficial. If such ulcers are very foul, the cure should be begun by a blister on the back, in order to draw off the heated serum that flows to the parts. Where the bark has not been indicated, I have usually given an opening powder of testacea and rhubarb, with a little nutmeg, or sometimes nitre, to which is added either calomel, cinnabar of antimony, or hydrargyrus cum sulphure; the latter of which, I think I have found more serviceable in some eruptive

complaints in young children, than seems to be imagined; but then it must be administered in much larger doses than it usually is. But above all, if this species of ulcer be not soon disposed to heal after such treatment, some mercurial application should be made use of, which, though the sores are often apparently inflamed, never offends them. A very clean and elegant preparation of this kind is the following.

R. Calomelan. ʒj ad ʒij.

Ung. Sambuci ʒj m. ft. linimentum.

A little of this liniment spread on each side of a piece of doubled linen-cloth, and applied twice a day, will do more than all the fomentations, or healing ointments, that I have ever seen used; and indeed has always succeeded with me, though I have often been told, that the sores had spread deeper from day to day under various other applications. From such treatment I have never found the least ill effects, but children have preserved their health as well as if the sores had kept open; which, when benign, are certainly designed by nature as a preservative from other complaints, especially those of the stomach and bowels, which will presently be noticed.

ABSCESS *within the* EAR.

IT is not uncommon to meet with fetid discharges from the internal ear, either with, or without inflammation, and external soreness; but this is usually in children of one or more years old, rather than very young infants. If a little cooling physic, and wiping out the matter frequently, should not remove the complaint, deterfive injections should be used, and some one of the warm acoustics, directed for deafness, be afterwards dropped into the ear. The child should also be made to lie, as much as may be, on the affected side, that the discharge may have a free vent.

Should the quantity and fetor of the matter be increased, a blister should be kept open on the nape of the neck, a few purges of calomel be taken, and on the intermediate days, the hydrargyrus cum sulphure. But above all, in the worst cases, fumigations with the hydrargyrus sulphuratus ruber, and hydrargyrus cum sulphure mixed together, should be made use of morning and evening; from which I have seen the best effects when the discharge and fetor have been very great, and the ulcer of long standing.

VOMITUS, or VOMITING.

I Come now to the several disorders of the alimentary canal, which have been said to be so materially connected with eruptive complaints ; and first, of those of the stomach.

Vomiting is certainly not a common complaint of infants, I mean when considered as a *disease*, unless it be attendant upon some other, of which it is then rather a symptom, or the consequence of such disease improperly treated. Neither are infants in health disposed to vomit frequently, unless the stomach is overloaded ; the milk is then usually ejected as soon as it is taken, and comes up unchanged. Nor is this to be considered as a disease, or as calling for the discipline recommended by some writers. Wherefore should the residue of the aliment be forced off the stomach by an emetic, when nature has already parted with all the oppressive abundance ? This spontaneous puking is not attended with any violence to the stomach ; the milk, or other food seems to come up without any sensible action of the part, or the child being sick. Nay, it is at once so common to some of the finest children, that it is a saying with some experienced nurses, that a puking

child is a thriving child ; and when such ejection comes only soon after sucking or feeding, and the aliment is cast up scarcely changed, matter of fact verifies the observation.* I have even known clotted blood thrown up, without any apparent effort, in an infant not two days old, and without the least ill effect.—But if the food remains some time on the stomach, it will then be thrown up in a curdled state, which is an indication to attend to it, if it happens frequently. Not that the milk ought not to curdle on the stomach, which it always must, in order to a due separation of its component parts, and is the chief, if not the only digestion, it undergoes in the stomach. The whey and the rich oil are there separated from the curdy and earthy particles, the former being taken up by the lacteals,† is converted into blood ; whilst the bulk of the latter is carried down and expelled with the other excrementitious parts of the food, and

* See PRIMEROS ; *De Morbis Infant.*

† It is not intended in this place to speak with physiological accuracy, but in a mere reference to the first digestion : in the second, indeed, it is probable, that some portion of every constituent part of our food may be further prepared to become nutritious ; the thinner serving to renew the finer parts of our system, and the grosser, such as the earthy particles, &c. more adapted to the renovation of the muscles, tendons, bones, &c. may be deposited in these parts.

gastric juices, for which nature has no longer any use. This curdling of the milk, therefore, is the natural course of digestion, though many writers have not been sufficiently attentive to it, and HARRIS has asserted, that it is owing to a predominant acid; implying, that an undue acid is the only cause of the separation; which it certainly is not. It may, indeed, occasion it to take place too suddenly, and give rise to various ill consequences: although such separation ought to be made, as the natural and proper effect of mixing duly with the gastric juice. When infants, therefore, not over-fed, throw up the milk uncurdled, after it has been some time in the stomach, it is always, a worse sign. But when the milk comes up in a curdled state, it proves that the stomach having digested what it has received, hath not power to push it forward into the bowels, and therefore throws up a part of it.* If this be the case, the stomach may perhaps require to be emptied of its whole contents, which may then be easily done, by giving a little warm water, or chamomile tea. The cause of the indigestion was an accidental repletion; that removed, together with the conse-

* I have known a child throw up a piece of curd full as large as the thumb of a grown person, and as firm as a piece of dough; and be perfectly well the next minute.

quent foulness, or bad juices of the stomach, the effect also will generally cease, and unless the vomiting returns, from any further injury the repletion may have occasioned, it requires nothing more. To distress the child, on every such occasion, with a sickening emetic, or drench it with rhubarb and magnesia, is as needless as it would be to wake a patient out of a sound sleep to give him an opiate. Only let the child fast a little after having emptied the stomach of its load, and the nurse be careful not to overfil it for the future, and it will rarely want any other assistance.

If the vomiting, on the other hand, has arisen from acrid diet, a little further discipline may be requisite, because some half digested food has got into the bowels, perhaps for several days together. In this case, a gentle laxative, and change of food for one of a milder kind, is all that is generally necessary; or if there be a prevailing acidity in the stomach, either the testaceous powders, or magnesia, (according to the state of the bowels) may be mixed with the food, or be otherwise administered for two or three days, as the occasion may require. Or a drop or two of the aqua kali, or a little castile, or almond soap, are excellent remedies, especially when the stools are unusually green, or clayey; not only as they

will tend to correct acidity, * but promote the secretion of bile, as well as a generous warmth in the first passages, and assist the digestion. For which purposes also, myrrhe, though an obsolete, is an excellent remedy, when infants are a few months old. Should the vomiting be a symptom attending some other disease, its remedy will turn on the proper treatment of its cause. Should it follow upon a suppression of discharge behind the ears, and more especially if consequent upon the use of drying applications, a return of the discharge should be solicited. Or if the cause be the sudden disappearance of some eruption on the skin, its appropriate remedies must be employed; and the infant be put to bed: and if the vomiting continues, an emetic should be given, and afterwards a blister, or warm plaister, applied to the pit of the stomach; or some light cordial be administered.

Dr. A. HOME† strongly recommends the following,

* It is well known how small a quantity of soap put into a churn will prevent a due separation of the component parts of the milk, so as to allow very little, or no butter to be made; whereas, a little vinegar effects the separation almost instantaneously, and saves a vast deal of trouble.

† On the Diseases of Children, 1776. Though this work has been so long published, I did not happen to see it until

R. Decoct. Cort. Peruv. ℥ ij.

Syrupi Papaver. alb. ℥ ij.

Ft. Mistura, cujus sumatur Cochleare minimum, vel Infantum secundâ quaq. horâ.

Having mentioned emetics, I shall take this occasion to observe, that the choice of them will be always best determined by the nature of the complaints for which they are administered. In those of the first passages, ipecacuanha is generally the best; but if a fever should attend, or it be wished to promote a gentle perspiration, those of antimony are preferable; or lastly, in disorders of the breast, the oxymel, conserve, or tincture of squills.

But a more troublesome vomiting will sometimes arise in unhealthy children, from too great a sensibility, or too great an irritability of the nerves of the stomach. Such medicines are then indicated as will brace, or strengthen that organ, and abate its sensibility. For the former, a cold infusion of the bark, or of chamomile flowers,

my last Edition was in the press. It contains many remarks that do the author great credit, considering the time in which it was written; but it is very deficient in discriminating the ages of children, and the adjusting the dose proper for them, even where mercury and opium enter into the composition; a neglect of the greater importance as he writes professedly for female readers.

with orange peel and ginger, and sometimes a little rhubarb: for the latter, a saline mixture with a drop or two of laudanum. And the benefit of these may be increased by aromatic and spirituous fomentations to the pit of the stomach, or by the labdanum plaister, with a little theriaca added to it. Also the following,

R. Gum mastic. elect.

Stor. calamin.

Pulv. Nuc. Fr. Myristicæ

Fol. Myrti

Flor Balauſt. āā ʒj,

Ceræ atque Tereb. āā Q. S. ut ft. Em-
plaſtrum, alutæ inducendum.

R. Ung. ſimpl. ʒiij.

Olei Macis (dict.)

—— Roriſmarini āā ʒ ſ.

Balf. Peruv. ʒij.

M. F. Unguent. quo tot quotidie Regio Stomachi atque Umbilici calide inungatur, ſupraponendo ulterius morſum lanulæ.

Laſtly, a vomiting may ariſe from a ſtrangu-
lated hernia. When therefore, ſcarcely any
thing is found to ſtay on the ſtomach, or all the
above remedies fail to remove a frequent diſpo-
ſition to vomit, practitioners will be aware of it,
and make a due examination of the ſeveral
parts where ruptures appear.

CARDIALGIA, or INFLAMMATION of the
STOMACH.

THIS is a disease very seldom met with, I believe, in this country, but is common in *France*, as appears by a paper read before the *Royal Society of Medicine*, in *Paris*, by Mr. SAILLANT; and is said to attack children of four or five years of age.

The pathognomonic symptoms of this disease are, great pain in the region of the stomach, sometimes recurring every quarter of an hour; violent contortions of the child; and the application of a hand to the seat of the disease. Mr. SAILLANT in the first instance suspected these symptoms to be owing to worms, and prescribed accordingly; but that child dying in a few days, the body was afterwards opened, and the presence of genuine inflammation of the stomach, and of a part of the intestinal canal was clearly demonstrated.

The treatment of this dreadful disease is, however, represented as very simple, consisting only in cooling and laxative remedies, which when administered in good time, are said to be usually successful. For this purpose, Mr. SAILLANT has generally administered the juice of

lettuce, by spoonsful, every hour; an idea he took up from BAGLIVI, who directed the juice of the sow-thistle in the hemitritus, under symptoms analogous to those of the cardialgia. The juice of lettuce was generally found to relieve the pains in a short time, and some infants who had been judged to be in a hopeless state, and even at the point of death, were perfectly recovered.

Mr. *Andrij* has done me the kindness of acquainting me, that he has sometimes met with this complaint in the *hospice des infans trouvés*, especially during the summer, and at such other times as infants have been obliged to continue there without the breast, for the want of wet-nurses, (who are usually otherwise engaged in the harvest and vintage seasons;) as well as during a hard frost. In the instances Mr. *Andrij* has seen, the infants were found to vomit up every thing that was given them; which it is probable, must generally be the case where the stomach is actually inflamed. In such instances, perhaps, fomentations, or a blister, to the stomach, and the use of a warm-bath, together with castor-oil, or other demulcent laxative, ought also to be made trial of.

TORMINA, *or* GRIPEs.

THE Gripes is a very common term amongst nurses, and some writers on children's diseases have treated of it under a distinct head; but this serves to perplex matters, instead of explaining them. If a child be not hungry, nor hurt by some parts of its dress, there will always be symptoms attending to account for its crying, and other expressions of pain. The cause is, indeed, very commonly in the bowels, and may be increased by costiveness and wind, which have already been treated of, but more commonly manifests itself by a purging, which comes next in order to be considered. I shall only previously observe, that children when very much griped, sometimes refuse taking the breast, though offered them repeatedly, when placed, in the usual manner, on the nurse's arm, but will take it, nevertheless, very readily if they are held, upright, before her.—The reason of this, perhaps, is, that the offensive and irritating matters in the stomach then descend from the cardia, which is exceedingly sensible from its numerous nerves.

DIARRHŒA.

UNDER the article of vomiting it was observed, that frequent puking is oftentimes an at-

tendant upon some other complaint, and then demands a peculiar attention, and is to be treated agreeably to the nature of such complaints; and there is perhaps, none which it more frequently accompanies than a diarrhœa.

Vomiting and purging very often arise from unwholesome milk or other food, and from a moist cold air, as well as from the sudden disappearance of some eruption on the skin. The purging is not then hastily to be stopped, nor even absorbent powders to be given, till the offensive matter be first carried off; and if a vomiting attend, the cure should begin by administering an emetic. But though the purging ought not to be checked without previous evacuations, nor to be stopped hastily, yet it is not to be treated with a daily exhibition of rhubarb, which, though a common practice with many, serves to prolong a purging after the cause has been removed, by keeping up a continued stimulus. The diarrhœa, indeed, is a complaint often as difficult to treat as any in the infant state, and is therefore worthy of particular notice. In a general way it may be said, that a sufficient dose or two of rhubarb should be administered in the beginning, and afterwards absorbents. If the purging should still continue, an emetic will still be necessary, as purges do not

always lie long enough in the stomach to carry off the offensive matter it contains. After this, it is often necessary, that the child be purged again; for it should always be remembered, that many complaints of infants, whether seated only in the first-passages, or attended with fever, will frequently seem to be giving way upon procuring stools freely, but will soon return if the same means be not repeated, till the whole irritating matter be carried down. Should such repetition fail of success, though the diet has been carefully attended to, the use of them at present should be laid aside, and recourse be again had to absorbents, and if there be no fever, to light cordials, and even to opiates; without the latter of which, many bowel complaints will not admit of a lasting cure, owing to the great irritability of infants. Such medicines are not, indeed, very often required till children are some months old: but when they are found necessary, not only may syrup of white poppies, but even laudanum be given with the most perfect safety; though from the time of GALEN, (who cautions against giving theriaca to children) till of later years, many physicians have been fearful of directing them, (arguing from their abuse against their use) and especially HARRIS, who in other respects, has written so well on their diseases. I

remember being called to see an infant of only two days old, who, through a mistake, had taken some hours before, four drops of laudanum. The parents were greatly alarmed at the child's lying in a comatose state, without being able to take the breast or open its eyes. I advised therefore only to get a little breast-milk down with a tea-spoon, and encouraged them to believe that the laudanum would do no kind of harm; the infant having no disorder for which that medicine was improper. Accordingly, though the child lay sleeping above six and thirty hours, it afterwards awoke perfectly well.—This is mentioned, however, only by way of encouragement to such as may be fearful of administering opiates even where they are necessary. They are, nevertheless, very powerful medicines, and should be prescribed with due caution for patients of every age, and especially for infants. A like caution may be necessary in regard to cordials, which are, nevertheless, in many cases equally proper, notwithstanding a modern prejudice against them. There is a certain coldness and languor in infants when they are ill, especially under some bowel complaints; and whenever they may be in that state, that class of medicines will have a very happy effect.

It is to be observed, however, that a purging is not always a disease. The bowels are the great natural, and critical outlet in infants, as the pores of the skin, and the kidneys are in adults; although in both, from their vast extent of surface, they spread a very broad mark for the shafts of disease. Not the mere discharge, therefore, but the cause of it is, in the first instance, to be removed, and the ill effects are to be guarded against by keeping the purging within bounds. For this purpose, the chalk julep, as it is an astringent only by absorbing the acrid, or changing the acid, and irritating matter, is as safe as it is useful; becomes an excellent anodyne, and after the bowels have been well cleansed, will usually accomplish the cure.

Dr. ARMSTRONG takes occasion to speak against the use of absorbent powders, and prefers wine of antimony, from a suspicion he has entertained of the great dependance that modern writers appear to have placed in them, previous to the exhibition of purges, on account of their known property of correcting acidity; and says, that in cases of extreme danger, a physician who is called in late, would, according to this practice, often find no opportunity for purging at all. But surely this is scarcely an argument to prove the superiority of his method, since no writer

that I know of, ever designed it as a rule without exception; and HARRIS, who has said as much as any man in commendation of the absorbent powders, does not deny the expediency of sometimes beginning with purgative medicines. But had it been otherwise, the argument goes no further than to prove, that in cases of great danger, the wine of antimony, being both an emetic and a purge, ought to precede the use of the testaceous powders. Instead of this, Dr. ARMSTRONG slides into a general conclusion from premises evidently limited; though he has advanced nothing against an established, and successful method of treatment. And I may add, that whilst he is fearful, that the absorbent powders (which nobody prescribes without some purging medicines,) should check the looseness, and thereby increase the fever; he ventures, after a repetition of the antimony, to administer what he calls a gentle paregoric, or opiate, to appease the pain, consisting of a dram of syrup of white poppies, repeated every three or four hours, till that end be obtained. So that if the pain should continue for nine hours, a child will take half an ounce of the syrup; and this Dr. ARMSTRONG observes is the only medicine he gives, except wine of antimony, which (notwithstanding the opiate) he supposes to be the efficient remedy—

but how much more powerful a restringent, in its ultimate effect, the syrup is, than the absorbent powders, it is unnecessary to say.

It is an improper exhibition of absorbents, I apprehend, rather than their dose, that has made some practitioners so averse to them; for they certainly ought, in many cases, to be given in large quantities: but if administered too early, and long continued, the stools may become like plaster of Paris, and be with difficulty excreted. Such an instance is mentioned by BOERHAAVE, who had, nevertheless, a very favourable opinion of them, as will be noticed hereafter. There is, however, some fallacy in regard to the colour of the stools; as this kind is observed on different occasions, in children who have never taken any of the testacea, if the secretion of the bile be obstructed; (as in jaundiced adults,) and will be noticed in its place.

In his second edition, Dr. ARMSTRONG mentions another method he has fallen upon for curing this disorder, which, however, appears to be recurring to the ancient method of treating bowel complaints; and seems, indeed, to overturn the idea he had entertained of the superiority of wine of antimony over every other medicine. This method, he tells us, is by cleansing the bowels, by means of proper pur-

gatives, joined with anodynes, intermixed in such a manner as to correct the griping quality of the medicines, and lessen the stimulus occasioned by the acrimony of the stools.—A plan worthy of imitation, it is apprehended, and though not likely to be proper in all cases, must, as an occasional practice, be safe and beneficial.

Regard is to be paid to the kind of stools that come away, which are seldom healthy and natural, and are usually distinguished into the four and curdled, slimy, mucous, green, pale, clayey, watery, and bloody;* some of which are at times also fetid. Under some of these, and particularly the latter, some powerful purgative, such as senna-tea, is generally necessary, if the child is not very young. True bloody stools, indeed, are less common in infants than adults, and seldom occur but in the last stage of the disease; but a few streaks of blood may sometimes be mixed with the feces, which arising only from the hemorrhoidal veins is of no consequence. Watery stools will be considered apart, under the head of the true watery gripes: at present I shall only observe, that very threatening appear-

* On feces discoloured by blood, or otherwise blackish, particular notice will be taken, under the head of Fever, and in *Vol. iii.* where mention is made of sore nipples.

ances of that affection, when green and curdled matters are purging off, are sometimes happily removed, in a day or two, by a gentle emetic and such a warm purge as that noticed below. When the stools appear very slimy, and more especially the four, or curdled, or when the child is much disposed to hiccough, the magnesia, and other absorbent powers are calculated to afford peculiar assistance, and may be warmed by any suitable aromatic. When the stools are very green, or white and clayey, a drop or two of the aqua kali may be occasionally put into the other medicines, or a little soap be dissolved in the clysters, which are essentially necessary when much griping attends this complaint; some light cordial is also frequently useful, and the child's belly may be rubbed with a little warm brandy; or be fomented with a decoction of chamomile flowers, or white poppy heads. But if the tormina be great, clysters of the whey of cows or asses milk, as advised by HOFFMAN, will often be found very useful, and should the infant be much emaciated, a portion of the sugar of milk* should be added to them.

It may be observed in this place, as a pretty

* The sugar of milk may be procured by only evaporating the whey by slow boiling; but may be made more pure by first clarifying it by the white of eggs.

general indication, that purgatives for infants ought to be made potentially warm, by the addition of a little ginger, pounded cardamom-seed, carraway-tea, or dill-water; which is of more consequence than is usually apprehended. I have indeed, known a careful attention to this circumstance alone, happily suppress complaints in the bowels, which had long continued obstinate, though, in other respects, properly treated. On this account, I venture to recommend the following as an excellent general remedy, especially as infants are pleased with it, and it will keep for a great length of time,

℞. Pulv. Rhei gr. xv.

Magnes. albæ ʒ ß

Aq. Fæniculi

Anæthi āā ʒvj.

Syrupi Rosæ ʒ ß

Spir. Ammonia comp. gtt. xv. ft. mistura, cujus fumantur Cochli. ij vel iij minima, bis, terve in die, vel ut opus sit. Or,

℞. Pulv. Rhei

Nucis myrist.

Magnes. albæ āā gr. iij vel iv. Sit pro pulvere, deglutiendo è cochleare minimo syrupi Rosæ.

Should purgings return frequently, it will be very useful (especially in the time of teething,

or upon the striking in of some eruption on the skin), to procure a little discharge behind the ears, or to apply a burgundy-pitch plaster to the back. For the former purpose, some finely pounded Spanish flies may be rubbed on the part, till a slight excoriation, or rawness, is produced; or perhaps a better method, is to draw a piece of coarse doubled worsted, or a bit of narrow tape, through a piece of the emplastr. cantharidis, and lay it close behind the ears where they rise from the head, and repeating it occasionally; which will produce a discharge exactly from the spot where it is wont naturally to arise. The following preparation is highly extolled by BOERHAAVE,* as an almost universal medicine in the diseases of infants; and is certainly a good remedy, especially in their bowel complaints, and particularly when attended with green stools, after the exhibition of proper opening medicines.

℞. Sapon. dur. Hisp. ʒij.

Margarit. ppt. ʒi.

Syr. Alth. ʒ ʒ

Chel. Cancr. ppt. ʒi ʒ

Aq. Menth. sativæ

Fæniculi āā ʒ iij

ft. mistura, cujus sumatur cochl. infantum
octavâ quâq. horâ.

• *Epist.* I. ma.—ad J. B. BASSAND: a physician at Vienna.

Notice is taken in another place,* of pale stools being no uncommon occurrence when children are breeding their teeth. They are also met with in fevers, as well as in simple disorders of the bowels; and therefore might be introduced under either of the former heads, instead of this place. But as the stools are very numerous and watery, and the purging itself is the first occurrence, it has seemed, upon the whole, proper to give it a formal discussion under the present article.

The complaint, however, has been found most obstinate in children who are turned of a year old, and cutting their double teeth. The stools are not only clayey, thin, and very white, but curdled like those of very young infants at the breast. In the beginning, it is seldom attended with any degree of pain, or other complaint, except it be the loss of appetite; and this has led parents and sometimes other people to think, that the discharge ought to be checked by absorbents, or opiates. But nothing can be so improper; the skin soon becoming hot, the tongue white, and the disorder rarely yielding to any treatment under two or three weeks. This is almost always the case, if teething be any wise concerned in the complaint, unless the teeth

* See the Chapter on *Teething*.

happen to be nearly cut through: though a purging with pale stools, it has been said, is met with in fevers of another kind, where the cause is confined wholly to the first-passages.

Whatever the age of children may be, they are always somewise indisposed while the alvine discharges are of this colour; and whether there be either fever, or purging, or not, children lose their flesh; as it is indeed, likely they should from this clay-like matter sticking to the coats of the intestines, and preventing the due absorption of the nutritious parts of their food. This is especially true, when the stools are thick as well as pale; or if they be of a leaden-blue colour and very adhesive, or pasty, and in amazing quantity, as is sometimes the case.

Whether the teething be materially concerned or not, purging is the proper and principal remedy, unless the gums are in a state to be lanced, or the stools should continue a long time very pale, or clayey, after the fever and purging disappear. In the latter case, some saponaceous medicine will prove serviceable, such as the *aqua kali præparati*, or a few drops of *spiritus ammoniæ compositus*, taken two or three times a day; the bowels being still carefully kept open.

Where dentition is the probable source of irritation, and of these pale stools, but lancing

the gums has not accelerated the irruption of the teeth, or the period is too early to expect benefit from it, children are oftentimes not only free from fever, but are, on the other hand, cold and languid, and should therefore be purged less frequently. Some cordial medicine should also be administered on the intermediate days, as well as on the evenings after the physic has operated.

In the early part of the disease, the active purges are the most proper, such as castor-oil, fenna, and sometimes calomel; or, if the fever be considerable, an infusion of burnt-sponge and fenna, a preparation equally adapted both to the fever, and this kind of purging.

Another bad kind of stools appears sometimes during teething, that has been alarming to many, as nothing like it, that I know of, appears spontaneously in infants at any other period; though it is not uncommon in adults, and especially, I think, in females. This is a discharge of a very thick mucus, which appears in great quantities, and sometimes accompanied with a little blood.

Neither of these discharges, however, do any harm, if the bowels be kept a little more than usually open, by some soft purgative, and some light cordial interposed, or the test. ostreor. ppt.,

if found necessary, in order to strengthen the bowels.

The cause of this appearance seems to be of the same kind with that in adults, and from mere irritation falling on the glands of the bowels, and keeping up an increased secretion of their natural mucus: and it is well known, that the time of teething, is that in which the bowels are peculiarly liable to irritation.

To the various observations that have been made I shall briefly add; that there is a disordered state of bowels, which frequently occurs, and is disposed to continue a long time, during which, infants, though not often precisely ill, do not thrive, nor look well.—The stools are said to be always bad; being sometimes of a green colour, at others, of a pasty consistence; sometimes very numerous, and at others, infants are for several days very costive.

In this, as well as other bowel affections before described, when laxative, alkaline and absorbent medicines have been found to procure no permanent good effect, calomel often proves a sovereign remedy; and may be given in the dose of half a grain, or more, to infants in the month, for two, three, or four successive nights. In general nothing purgative should be administered, the following mornings, but the mercury be

left to its proper action. It is certain, that this mineral has a marked operation on the liver, obviating a morbid action, and as a stimulant, when inert ; and is an equally well known deobstruent for all the glandular system, and will be found a very safe and efficacious medicine ; infants being known to bear mercury much better even than many adults.

When purgings have continued a long time without any amendment, a peculiar tightness of the skin will sometimes take place in the last stage of the disease, affording always an unfavourable prognostic ; and of which further notice will be taken under the article of *Skin-bound*.

I come, lastly, to treat of the *Lientery*, or true *Watery-Gripes*, so called, which is esteemed the most dangerous of all purgings, and is usually thought fatal, though perhaps without reason ; since if properly treated, children recover from it as well as from excessive purgings of any other kind, unless it happen after some other illness, or to very small and tender infants during the month. It is not the having a few very thin stools, however, that is an evidence of the true watery-gripes, for in almost every purging of a few days continuance, the stools are very thin as well as numerous. But in this case, they are thin very early in the disease ; the child looks

wretchedly, and every thing it takes runs almost immediately through it, with very little change, as in the lientery of adults. It should likewise be remarked, that these symptoms continue, and are increased as the disease advances ; it having been already noticed, that there is a semblance of watery-gripes, that will otherwise deceive, as it requires a different treatment. In this case, the stools are perfectly watery, and tinged only with the bile, and are very numerous ; the thin stools arising from a violent, but ineffectual effort of nature to get rid of offensive matter : for upon exhibiting a warm purgative, or castor-oil, several very thick, and always clayey stools are brought away. A mixture with chalk and aromatics should then be administered ; to which laudanum should be added, if the stools are still too numerous, and the child appears much debilitated. The purging medicines must be afterwards repeated as long as the stools shall be clayey ; and the restraining cordial interposed, as occasion may require.

In the *true* watery gripes there is not the like indication for purging, but the CURE should be begun by administering one or more emetics, especially when the stools are of a dark colour and fetid ; as they frequently are in the earlier periods of the complaint. And to this end, a

pretty strong one should be prepared, which should be given in divided doses, at about a quarter of an hour's distance, till a proper effect is produced; and some hours afterwards a warm purge with rhubarb should be administered, if the disease be not very far advanced. After the first passages have been cleared, the eighth part of a grain, or less, of ipecacuanha, or a drop or two of wine of antimony, given every three or four hours, with a few grains of the testaceous powders, or the aromatic confection, appear to me amongst the best remedies in the earlier periods of the complaint. Indeed, ipecacuanha in very small doses, especially if duly guarded by some gentle aromatic, is both so useful and safe a remedy, that it should not be hastily laid aside: and when persevered in the use of for some time, will effect wonders, not only in long purgings, but in other chronical complaints. The like may be said of the *vinum antimonii*, which in the less aggravated watery gripes, or where a purging is for a long time attended with very bad stools, forbidding the use of restringents; as well as in some little feverish complaints, I have found equally useful, and even sometimes more manageable as an alterative than ipecacuanha, because less disposed to nauseate infants where an emetic may not be

directly intended. There being also cases in which the physician wishes a medicine may operate as a corrector of the secretions in the first-passages, or to expel their contents, either upwards or downwards, as may be ultimately most useful, antimonials seem in this view likewise to claim a preference to all other medicines.

In the more advanced stages of the watery-gripes, and where the child is not very young, the following old medicine is a very good one. Of *Locatelli's* balsam, one ounce, and conserve of red roses, two ounces : from the quantity of an horse-bean to that of a nutmeg, may be given three or four times a day, according to the age of the child. Others have advised red bole, and gum tragacanth.—The labdanum and other plasters likewise, as directed for vomitings, or the following, may be applied to the parts above the navel, especially in case of great pain :

℞. Theriac Venet. ℥j.

Olei expresi macis dict. ℥ij.

Olei N. Mosch. gtt. iij.

Misce, ft. Empl. alut. induc. Or

℞. Axung. Anserin. ℥ij.

Olei epressi Macis (dict.) ℥j.

Menthæ fativæ ℥j.

Bacc. Junip.

Chamæmæl. āā ℥℥

Misce ft. Linimentum.

Inungatur eo bis vel ter quotidie Stomachi et Umbilici Regio.

Warm flannel with, or without heated bran, may be afterwards laid over the whole belly, and renewed frequently.

Should these means fail, I have known the repetition of a vomit give an immediate check to the complaint, especially where the stools continue to be remarkably sour. As long as this is the case, it would be both vain and hazardous to exhibit opiates, or powerful restringents: the acidity must be first carried off by warm purges, and be corrected by absorbents; the latter of which must be given in large and repeated doses, and frequently their powers be augmented by the addition of aqua kali, or tinctura myrrhæ. And an excellent remedy sometimes, as an antacid, is the spiritus falis ammoniaci succinati of BATES's dispensatory. The acidity once removed, a starch clyster may be thrown up, two or three times a day, with, or without a few drops of laudanum, according to the number of the stools, and weakness of the infant. A drop or two of laudanum likewise, may now be given, once or more in the day, (according to the age of the child) either joined with some purgative, or in any of the afore-mentioned medicines, or in the

chalk-julep, made warm with tincture of cinnamon, or of cardamoms; and in cases of extremity, in the decoction of Logwood, which agrees very well with young children.—In the advanced stage of watery-gripes, or in the case of great debility, the liberal exhibition of aromatics and opiates is essentially necessary.

Bowel complaints, it was said, are frequently owing to improper food, which on this account, should at all times be peculiarly attended to; and when a purging has taken place, ought to be suited to the nature of the stools. In the last volume of this work, some further notice will be taken of the article of children's food; at present I shall only observe, that cow's milk is often found to disagree with them when their bowels are disposed to be too open, at which times, a little lean mutton broth, or beef-tea is abundantly preferable. On the same account, rusks, and biscuit-powder are more suitable than bread;* but at other times, I believe, either the Uxbridge, or the French roll, which are already half digested by a previous fermentation, are more easily dissolved in the stomach,

* Rusks are preferable to tops and bottoms, as they are called, which have a good deal of butter in them; and are the least disposed to offend an infant's stomach of any thing of the *bread* kind.

if there be not a predominant acid in the first-passages. But where there is an habitual disposition to a purging, I know of no diet so proper for infants who do not suck, or who cannot have enough of the breast, as flour slowly baked for a long time, till it breaks into a soft greyish-coloured powder,* and afterwards mixed with boiled cow's milk, the scum being first taken off; the flour and milk should then be boiled a little time together, till the whole appears like a thin custard. This is a very light and soft food, and sufficiently restraining; and I have often known more good from it, than from all the absorbent medicines ever devised, and have received more thanks for the prescription, as it proves a permanent remedy. So also the powder of arrow root, boiled in water, and then mixed with milk, is an admirable remedy when it can be procured genuine. When the watery-gripes, or indeed, any violent purging, attacks very young children at the breast, no other food ought to be administered, but the wet-nurse be changed, if the acidity and purging continue many days, and medicines do not seem to take a proper effect;

* To this end, the flour should be put into a small jar, properly covered, and be taken out of the oven several times, and stirred up from the bottom and sides of the jar, that it may not run into hard lumps, but the whole be equally baked.

which they cannot if any offensive matter be continually taken into the stomach.

If infants ill of watery-gripes, are brought up by hand, the strictest attention must be paid to their food, which must be changed from one kind to another, and especially trial be made of broths, as long as the food shall be disposed to turn very acid on the stomach. In one case, I think I saved a child by BATES's julepum vitæ, lowered with water, when nothing else would stay on the stomach. This served both for food and medicine; for the former of which it was still further diluted.

When children who are weaned, are attacked with repeated purgings, and even broth is found to run through them, I have observed no food so generally useful as a bit of the white of chicken, not over-boiled, and afterwards lightly bruised in a mortar with the chicken liquor, and a very little bread, into a kind of light jelly. But this should not be given oftener than twice, or at most, three times a day.

In all bowel complaints, it has been already remarked, that infants are disposed to eruptions on the skin; by which they are so frequently benefited, that if any kind of rash appears during long and severe purgings, a recovery may almost with certainty be prognosticated. The like

good effects have been noticed from a purging taking place in some obstinate cutaneous eruptions.

INCONTINENCE *of* STOOLS.

THE long continuance of the last mentioned complaint, as well as others which may debilitate the habit, may prove an occasion of that now under consideration. Children who are accustomed at all times to have a very open belly, being especially liable to lose the faculty of properly retaining their stools, and need a servant continually to attend them, even at two or three years of age; insomuch that some have been suspected of being culpable in the matter.

No very appropriate remedy, I believe, is likely to be necessary, having never ordered any thing more than dashing the parts, daily, with cold water, or at the most administering aqua calcis, or other absorbent; the complaint always wearing off as such children grow up, though oftentimes not entirely for several years.

WORMS.

WORMS may, probably, exist in almost any part of the body, as well as in the stomach and

bowels. They have, accordingly, been found in the pericardium, bladder, the nose, and sinuses of the head, and even in the lungs, liver, and other solid parts.* But as we neither know how they are produced, nor how to dislodge them from these recesses, which they also more rarely occupy in young children, it is quite sufficient to notice the fact; our inquiries being properly confined to worms in the first passages.

It is on this account, that the complaint is noticed in this place, especially as worms are said to have been voided by infants of only a few weeks old. It is even reported† that LILLE VAN DEOVERIN has discovered them in the still-born fetus. This, indeed, is much doubted by others, it being a very old observation, that worms are never found in infants who are nourished only at the breast; and if so, it is not likely they can be generated before birth. *Mr. De.*

* *Baglivy* reports, that worms are found in the heart; *Ruyfch* in the lungs, the spleen, kidneys, in the gonorrhæal discharge, and even in the marrow of the bones; *Schenkius* in the urinary bladder; *Bianchi* in the uterus and in ulcers; *Hippocrates* in the vagina, and they are said to be frequently under the skin in the *Negroes* in our *West-India* islands.

† *Philosoph. Transactions*.—The same author reports that a peasant, after taking an emetic, brought up forty Dutch ells of tape-worm, and yet left some part remaining, having through his agony, bitten the worm off.

Lille, however, disputes this, asserting, that worms were expelled from his own daughter, when only eleven weeks old, and living entirely at the breast.

However this may be, it is evident that worms are much oftener suspected to be the cause of children's complaints than positively ascertained ; and of this, practitioners who deal in secret medicines have in every age made their advantage ; it being certain, that a mere foulness of the bowels will produce most of the evils attributed to worms. Neither are all children equally affected by them where they are actually met with ; some infant children (as well as quadrupeds) continuing very healthy, though they are seldom free from them, and others parting with great numbers, unexpectedly, without any previous indisposition ; whilst some children are very ill who have apparently very few. The pains and other complaints in such case arise from some other source, of which I lately saw an instance in a girl of twelve years of age, long subject to excruciating pains of the stomach, for which she took various worm-medicines, and actually parted with several large lumbrici, but without the least relief to her pain, which immediately yielded to antispasmodic remedies.

I, nevertheless, cannot agree with Dr. BUTTER, that worms in the human intestines are altogether innoxious, much less, as he seems to think, useful, and intended as “ nature’s remedy for destroying the superabounding morbid humours; and for stimulating the first-passages by their crawling motions, and thereby assisting the peristaltic motion of the guts to carry off what remains of the offending load.”* On the other hand, children who are most troubled with worms are generally of a costive habit.

Worms become hurtful chiefly from their numbers; first, when they obstruct the bowels, or compress the adjacent parts by their bulk. Secondly, by sucking up the chyle designed for the nourishment of the child. Thirdly, by irritation. Fourthly, by actually destroying the parts; though this is certainly a very rare occurrence, and a far less frequent source of injury than those before mentioned. Worms have, however, been said to eat their way through the intestines; and LISTER relates,† that some resembling the teretes, but of a whiter colour,

* *Remittent Fever.* Pag. 36, et seq.

† *Philosoph. Transf.* See also HEISTER. Their appearance on a sore may, however, be otherwise accounted for than by supposing them to have made their way from beneath the ulcer.

have been seen coming from an abscess on the ankle. They are likewise said to have occasioned sudden suffocation, by rising up into the throat and lodging there.*

They are chiefly of four kinds, the large round worm; the very small maw-worm, or ascarides, resembling bits of thread; the short, flat white worm, or cucurbitina, and the jointed, called the tape-worm, or tænia, which is often many yards long.† This is the most hurtful of all, and most difficult of cure, because it will remain long in the bowels even after it is dead, and is then seldom brought away but in pieces, and that by very powerful medicines: though I think I have seen dead portions of this worm come away where no kind of purgative has been administered. But as this kind of worm is certainly not common in children, though it may sometimes have been met with; and as it generally occasions a variety of symptoms resembling other complaints, for which many different medicines may be required, little more than the mention of it may suffice.‡

* Mr. LE FEBURE DE VILLEBRUNE.

† The *cucurbitina* is thought to be a certain species of *tænia*; and the *ascaris lumbricoides* to be confounded with the *teretes*.

‡ It is so uncommon to find more than one of this kind, that it has acquired the name of the solitary worm; yet it is

The SYMPTOMS of worms are various, and many of them very equivocal: I shall name only the more constant, and less uncertain ones. Such are fetid breath, especially in the morning; bad gums; itching of the nose and of the anus, especially from the ascarides; a very irregular appetite, always in extremes, whether of hunger or of loathing; a large, hard belly; pains at the stomach; sometimes vomiting, oftener costiveness or purging, with slimy stools;* irregular colicks; thirst; dulness; peculiarly unhealthy and bloated countenance, with a dark, hollow circle round the eyes; startings in the sleep, and grinding of the teeth. To these symptoms are often added, slow fever, with a small and irregular pulse, pale, or whitish urine, a short and dry cough, (which is an almost constant symptom where the complaint is of long standing, and has injured the health;) sometimes even convulsions, epilepsies, and partial palsies of the lower

said there are a few instances in which several of them have been met with; but perhaps, attention enough may not have been given in the examination of them, it being well known, that this worm will live a long time after it has been broken into several parts. See *Letter of Dr. Nitret to De Haen, Act. Med. xij. 219.*

* The peristaltic motion of the intestines being increased, the secretion of the mucus must consequently be in larger quantity.

extremities. In the case of convulsions, if there be a small pulse attended with a hiccough, it is an almost certain sign that the convulsions are occasioned by worms. The like may be said of pain at the stomach, if it be very violent, sudden, attended with great anxiety, and a hardness and foreness of the parts above the navel. But more especially, according to HOME, an edematose swelling of the upper lip, and of the nostrils is a certain token of worms.

The CAUSE of this troublesome complaint is not, perhaps, certainly known; but the great moisture of young persons is thought to be an occasion of their being more infested with them than older people: and children, whose digestion is weak, are more liable to them than others.—Hence, debility seems as much a cause, as it is an effect of worms. Since the doctrine of equivocal generation has been justly exploded, it has, however, been generally imagined, that worms are engendered from the eggs of insects, which float in the air, or are swallowed with some part of our food, such as summer fruits, vegetables, cheese, and some kinds of flesh meats. But, perhaps, this is not altogether so certain as it may seem at first sight, unless we are to imagine that these supposed eggs produce very different insects, from being taken into the

stomach and bowels, than they would if deposited elsewhere; since it is generally thought, that insects of this kind, especially the tape-worm, are not met with any where else;* neither will it account for their existence in the unborn fetus, if that be really a fact. It is, however, more than probable, that they were destined by nature to be generated, and to live in the bodies of other animals, as observed by Dr. BLACK,† and ROSSEEN.

But whatever be the cause, the general intention of CURE is obvious enough, which is to

* Although this seems to be the fact, there are not a few learned men of a different opinion. Many travellers, and others, better acquainted with natural history than I am, have reported, that the very same kind of worms may be met with amongst vegetables, in the earth, and both in standing and running waters. That the *tape-worm*, particularly, has been seen in the waters about *Constantinople*, where the complaint is very common; and that natives of northern climates, who have resided for any length of time in *Turkey*, are very frequently afflicted with the *tænia*, as it is supposed in consequence of drinking of the foul standing waters of that hot climate. LINNÆUS also, and others have thought the *teretes* or *lumbrici*, to be the same with the common *earth-worm*; but TYSON has, by dissections, demonstrated the contrary. *Philosoph. Transactions.*

† *Treatise on the Generation of intestinal Worms, and on the Means of destroying them.*

See also, *Dissert. of J. Mathieu Gesner, Men. Gotting. an. 1751.*

bring them away in the most easy, and expeditious manner, whether alive or dead ; the difficulty chiefly consisting in dislodging them from their firm attachment to the sides of the bowels.

In this view, systematic writers state the indications to be, first, to destroy the nidus ; and secondly, to kill and expel the worms. The first may be effected by alcalis, as aq. kali ppt. saponet. bitter aromatics, and mercury ; or by resolvers, as the gums, asafœtida, galbanum, and such like. Secondly, worms are killed by oils, (in clysters) by honey, and by indigestible substances, as the testaceous powders, steel, and tin ; and by poisons, as preparations of mercury, which at the same time expel them. To these ends, indeed, a variety of medicines, pretty much of the same kind, has been devised, and has served the cause of empiricism in every age. Most of which consist either of the bitter purges, or mercurials.

Worms existing in the bowels can, indeed, only be carried away by purging ; and very active purges are indicated when the time of life and the constitution do not forbid. But when these are tender, gentle purges given duly for some time, by the constancy of their operation produce, without harm, an effect equally, or perhaps more beneficial and lasting, than the

active purges. These are often joined or administered alternately with bitters; and hence have arisen the family receipts, as worm-feed, tansey, and such like, given in treacle or honey; or joined, as it has been said, with rhubarb, fenna, or other gentle laxative. With many, and especially French writers, the male-fern, alone, is reckoned a specific. Olive-oil, likewise, has been said to be a good remedy, as being destructive to worms; but castor-oil is preferable, which by its purgative quality also carries them off by stool.

Agreeably to the above view of gradually ridding the habit of these vermin, children of a delicate frame, and such as have not been long infested with them, may begin by taking a small dose of infus. fennæ every other morning; but should this, in any instance, prove insufficient, a few grains of pulv. è scammon. cum calomel. may be given the over-night, once or twice a week, according to the age and strength of the child; and some tonic medicine be interposed. If purging much should, on any account, be found improper, the following is very safe and often effectual.

R. Limatur. Stanni ℥ij. Hydrargyr. ℥iij.

Misce, fiant amalgama.

Eight or ten grains of this powder, with three or four grains of rhubarb, and as much unwashed

calx of antimony, may be taken every morning in a little honey, for a week together; after which, a clyster of succotorine aloes, dissolved in warm milk, should be thrown up over-night, and a proper dose of rhubarb, or fenna-tea be taken the next morning: which course may be repeated, as the obstinacy of the complaint, or the strength of the child shall direct.—Volatile alkalis also, in some debilitated habits, will prove serviceable; as well as valerian, especially if it be occasionally joined with jalap. But one of the most powerful means, long in use with country practitioners, and of late strongly recommended by Mr. CHAMBERLAINE, is the dolichos pruriens, variously prepared; but the most simple form, that of giving it mixed up with treacle, is, perhaps, the best of all. It should be taken night and morning for three or four days, and then be purged off with fenna-tea, or jalap; and this course be repeated, as occasion may require.

Amongst other means, especially for such as may be at a distance from medical assistance, is a mixture of pewter filings and treacle, of which children of four or five years old, may take several tea-spoonsful in a day, almost at pleasure; which they will also readily do, for the sake of the treacle. At the same time, from five to ten grains of jalap, with as much of the hy-

drargyrus cum sulphure should be given twice every week, to purge off the dead worms. Dr. RUSH of *Philadelphia*, strongly recommends the rust of iron, from five grains to half a dram, for infants from one year old to five, exhibiting a purge every fourth or fifth day, to carry the worms down, as they die. To answer the last purpose, the following plaster is sometimes sufficient,

R. Aloes succotorin.

Pulv. flor. Chamæm. āā ʒj.

Tereb. venet. Q. S. ut ft. Emplastrum (cum margine emplast. adhæsivi) apud regionem umbilici admovendum: sed antea applicationem, imponatur loco umbilici morsum gossipii. Or equal parts of bullock's gall, and powdered aloes, may be mixed up with any unctuous substance, and the parts below the navel be anointed with it, two or three times a week; or succotorine aloes and powder of dried rue, made into a plaster with Venice treacle, and applied round the navel, first covering that part with a little cotton.—I mention these things with a view to the country poor, whom the benevolence of practitioners may incline them to assist, and who may, by these easy means, do it at so little expence to themselves.

If the complaint, however, has been of long standing, and the child not very young, mercurial purges are a more expeditious, and a safe remedy; though the hydrargyrus cum sulphure taken for a length of time, and occasionally purging with fenna, has sometimes succeeded, even where there have been the severest convulsions. For which likewise, or obstinate contractions of the limbs, the warm-bath is often essentially necessary.

Throughout the cure, and indeed afterwards, the diet should be strictly attended to, and all fat and greasy aliments abstained from. The child should live upon milk, broths, and meats of easy digestion, with toasted bread and honey, instead of butter, which is exceedingly pernicious.—To prevent a return of the complaint in older children, or grown people, chalybeate-waters and bitters may be made use of.

As it is not my intention to enter formally into the distinct treatment often necessary for the *tænia* (which, indeed, I have sometimes seen brought away by very gentle means;) I shall do no more than refer to SHMUCKER's new medicine, as well as the celebrated remedy of *Madame Nouffer*, said to be made use of with great success in *France* and *Geneva*; as I have also known it to be, two or three times, in this

country. It can, in nowise, however, be proper for young children, though it may, possibly, be safely had recourse to for robust youths, growing up to manhood. It is intended to operate very powerfully on the bowels for many hours, the patient being supported the while by repeated large draughts of broth, or green-tea.

The preparation of the preceding day, and some other precise directions, are equally needless in this place, and perhaps the previous exhibition of two or three drams of the *Radix Filicis masculini*, is of as little importance.—For a full account of the process, the reader is referred to *Madame Nouffer's Treatise*, published by Dr. SIMMONS anno 1787.

The purge is as follows :

R. Mercur. dulc. optimè sublimat.

Refin. Scammonii elect. ā. gr. x.

Gambogiæ gr. vj. vel vij.

Conserv. Cynosb. Q. S. ut ft. bolus.

The Cevadella or Indian Caustic Barley is recommended by *Shmucker* in the fifth volume of the *Journal de Petersbourg** as an almost infallible

* Mr. LOEFLEER, the author of the *Journal* assures us, that it may be taken thus with perfect safety ; and annexes cases of its success in expelling worms of different kinds. A very powerful remedy, much used in the *West Indies*, particularly for the *lumbrici*, is the *Spigelia Anthelmia*, a species of Indian

remedy for the tinœa. He directs a dram of the seeds, in fine powder, to be given every morning, fasting, mixed with honey; and to exhibit on the fifth morning a drastic purgative.

Dr. JAMES SIMS has lately succeeded with the ol. tereb. of which the patient for another complaint had taken two drams as a dose.

CONVULSIONS.

CONVULSIONS have been said to be induced by the last mentioned, and several of the preceding complaints. They are of two kinds; the *symptomatic*, and the *idiopathic*; though the distinction may not, perhaps, be perfectly philosophical, or accurate. It is for want of some such discrimination, however, that writers have had occasion to observe, that children are much oftener supposed to die of convulsions than they really do; for though a convulsion frequently closes the scene, it has generally arisen from the great irritability of their nerves, and violence of the disease under which they have laboured. But should it be granted, that the convulsions of children are generally symptomatic, infants may, nevertheless, be said to die of them more fre-

Pink; but it has not as yet, I believe, been made use of in this country.

quently than some authors have allowed ; for where a disease is disposed to produce violent convulsions, the convulsions, though a mere symptom, may carry off the patient : and as it may sometimes be prevented or removed, by its proper remedies, (the disease which occasioned it being at the same time properly treated,) infants may often be recovered, who would otherwise expire in a convulsion-fit.

Such original CAUSE may be a rash improperly repelled ; but is much oftener seated in the gums, in the time of teething ; or in the first-passages, where some undigested matter, or merely pent-up wind, irritates the coats of the intestines, and produces irregular motions throughout the whole nervous system. ZIMMERMAN* relates an instance of this kind, of a child who during the first months of its life, had frequent attacks of violent convulsions, which disappeared intirely, upon the prohibition of meal-pap. Indeed, too much caution can scarcely be given on this head, thick victuals being a very frequent occasion of convulsions in young children. Many infants can bear no kind of thickening in their food ; any sort of bread, rusk, &c. disordering their bowels, by occasioning their contents to

* *Acta Societatis Zyrick*, Vol. 2.

turn paftey, and cleave to the coats of the intef-tines, whereby, it has been noticed, a due abforp-tion of the nutritious part of the aliment is pre-vented, fo that children, in the daily habit of taking fufficient food, are, neverthelefs ema-ciated. Weak and tender as they are, they in this ftate require repeated purges, efpecially of caftor-oil, with fome light cordial on the inter-mediate days, and a total abftinence from farina-ceous food. For fuch children, veal-tea mixed with milk, is amongft the moft innocent and nutritious. Any offensive load, whether from too great a quantity, or bad quality of the food, by occafioning a faulty fecretion, muft act like a poifon; and that the convulfions are owing to this caufe may often be known by the complaints that have preceded them, fuch as loathings, cof-tivenefs, purging, pale countenance, large belly, and difturbed fleep. If the child is two or three years old, any load at the ftomach may be more readily difcovered; the tongue will be foul, the fkin hot, and the pulfe quick and weak.

Any little matter capable of irritating the ner-vous fyftem, will induce the fympomatic con-vulfions in fome infants, whilft others will with-ftand a great deal. For fuch habits as the for-mer, the cold-bath will be found the beft pre-ventive. Every young infant is, however, more

or less, pre-disposed to this complaint ; and the disposition continues throughout childhood, in a proportion to the tender age, and delicacy of the habit. The younger and more irritable, therefore, an infant may be, it will be so much the more liable to the symptomatic convulsion, especially from any considerable disturbance in the first-passages, as was mentioned before, particularly the bad quality, or over thickness of the breast-milk, or other food ; and from frights of the wet-nurse. Of this I remember a remarkable instance in a patient of my own, in whose house a visitor dropped down suddenly dead. The mother of the child, which was six months old, was exceedingly alarmed, but her attention being for a moment called off by its crying, she incautiously put it to her breast. It was not an hour afterwards that the infant was seized with a fit, and lay either convulsed or comatose, without so much as taking the breast, for the space of six and thirty hours ; though it was at length happily recovered.

Among the various causes of convulsions, (though equally an occasion of many other complaints) may be mentioned that of foul air, and want of cleanliness in the dress, and other accommodations of infants ; against which, the lower class of people cannot be cautioned too often, or

too earnestly. Such a source of convulsions has been particularly exemplified in a disorder whose attack being within the first nine days after birth, has been denominated the *nine-days disease*. Readers desirous of a full account of it, are referred to a paper of Dr. CLARKE of *Dublin*, published in the Transactions of the Royal *Irish Academy* for the year 1789.

It is noticed on the present occasion, however, merely to record a fatal convulsion, induced by mismanagement: it being mentioned by Dr. CLARKE himself as altogether an endemic in the *Dublin* lying-in-hospital, where it raged for many years, and carried off some thousand children. But it appearing after a while to the Doctor, that the disorder might probably be entirely owing to bad air, and want of cleanliness, he was at great pains to remedy these local defects; and thereby prevented those very frequent attacks of a disease, which under the former circumstances, none of the physicians had been able to cure, in a single instance.

The cure of every convulsion will consist, principally, in removing the exciting causes, which must, therefore be inquired into. If from improper food and indigestion, a gentle emetic should be given. If the irritation be in the bowels, whatever will carry down their acrid con-

tents will cure the convulsions, if administered in time; and we ought generally to begin with a clyster. If the stools appear very foul after common purges, (in which case there will frequently be a difficulty of breathing) a few grains of the pulv. è scammon. cum calomel. may be given with great propriety. But if the disposition to convulsions continues, after the bowels have been properly cleansed, and no new irritation of them may be apprehended, anti-spasmodics should be administered,* such as tinctura fuliginis, castor. spir. cornu cervi, ol. succini rectific. a drop or two of tinct. opii, or olei rutæ; which though an obsolete medicine, is a very excellent one. The continuance of the convulsion here treated of,

* I speak from my own experience of the efficacy of such remedies, and it may not be amiss to observe, that HARRIS, who is extremely cautious of giving heating medicines to infants, speaks favourably of some of these.—“*Usus horum (says he) haud prorsus improbandus est, vel in tenellis: nempe quia acidum absorbendi facultate excellunt. Verum summâ cautione,*” &c.—Great caution is certainly necessary in regard to every medicine prescribed for infants, and especially, it has been granted, for those of a heating quality: nevertheless, it may be repeated, that in proportion as the disorders of infants shall become more attended to, I doubt not, it will appear that, in this country at least, cordial and volatile medicines are frequently both more expedient and useful, than many people have imagined.

frequently depends on the debilitated state, or tender age of the infant. The oil seems to act by invigorating, and restoring a due tone to the alimentary canal, the grand spring of good health. A remedy less common than those above mentioned, but in some instances given with the best effect, is the *zincum vitriolatum purific.* This administered in a proper dose usually acts as an emetic, and if it should, must be continued afterwards in smaller doses. Dr. COOKE very strongly recommends a mixture with *spermacet*i and *ol. anisi*, and perhaps such a medicine from its sheathing and warm carminative qualities may be as proper as many other; though the stile of the author is not likely to recommend his prescriptions very strongly in the present day.* Rubbing the spine, palms of the hands, and soles of the feet with *oleum succini*, or the *aqua ammoniæ* has likewise had a good effect; as well as frictions over the whole body; which from the consent of parts, seems to afford more benefit than might be imagined.—A very common cause of recurring convulsions, has been said to be worms;

* After having looked into almost every work that has fallen in my way, on the subject of infantile diseases, I did not expect to meet with any thing of so late a date as 1769, that could reflect any such disgrace on the practice of physic, as the very anile performance of this writer.

and where no other probable one may appear, ought to be suspected: the cure will then depend on the proper treatment of that complaint, the symptoms of which have been already sufficiently pointed out.

Should the convulsions arise from the disappearance of a rash, or of a discharge behind the ears, the warm-bath, blisters,* gentle purges, or a few drops of the *spiritus ammoniæ comp.* joined with *sal succini*, have been already mentioned as the proper remedies. But when the cause is unknown, as the approach of small-pox, measles, or other eruptive complaint, bathing the feet in warm water, and throwing up a clyster, are the safest means. If from teething, after gentle evacuations and other means directed

* Blisters may be dressed with the common white cerate, rubbed down till it becomes smooth, and spread upon a double linen cloth, instead of the hard plasters commonly made use of, which are very harsh to the tender excoriated surface.—Blisters will sometimes inflame, or be for many weeks indisposed to heal up, in children as well as in adults; in either of these cases, covering the part with a collard or other soft cabbage-leaf, (with the hard fibres on the back part cut off, and gently bruised with a kitchen rolling-pin) will often remove the inflammation sooner than any other application. Dusting the surface afterwards with the finely levigated powder of *lapis calaminaris* will frequently dispose the ill-conditioned ulcer to heal.

under that head, blisters, oleum rutæ, laudanum, or the spiritus ætheris vitriolici comp. and especially lancing the gums, are the grand remedies. And in a view to the latter, it may not be improper in this place, to anticipate some of the directions for doing this little, and most salutary operation,* more effectually than it, usually, is; especially in the case of convulsions. It is pretty well known, indeed, that it is not sufficient to cut down boldly to the tooth, and liberate it in every part; nor merely to free all such teeth as are manifestly making their way; but that others also must not be overlooked, which though less evidently, have oftentimes a share in the mischief. But that which I would here also insist upon, is, to repeat the operation frequently, till either the teeth make their way, or the convulsions disappear. And as no harm can arise from the repetition, I wish to enforce the idea very strongly, in every instance, where teething is regarded as a cause of convulsions: a perfect cure of very obstinate fits being sometimes effected by lancing the gums for even five or six days successively. The obvious reason of this distinction, is, that the divided parts often tumify, or heal up again, and give rise to suffi-

* See the chapter on Teething.

cient irritation, in certain habits, to keep up convulsions, which on the other hand, yield upon securing the nervous parts from fresh irritation occasioned by the continued protrusion of the teeth. In this view it will sometimes be proper to lance the gum across, as for the double teeth, as suggested by Mr. WARE in the case of ophthalmia occasioned by difficult dentition.

When repeated convulsions connected with some disorder in the first-passages, and recurring for several months, withstand all the above means of cure, and are suspected to arise from some fault in the brain, they will sometimes disappear of themselves as the infant gets older. At other times, the appearance of some other complaint has put an end to the convulsions; and not unfrequently, changing the wet-nurse; and sometimes even weaning children, when six or eight months old, has seemed to remove the complaint. I remember a remarkable instance of the concurrence of two of these circumstances; the child being seized with the small-pox, and weaned, at or near the same time. The infant previously to this, for several months together as constantly fell into violent convulsions as it chanced to chew a crust of bread, eat a bit of plain pudding, or even take bread and milk; and though when debarred from these, and

nourished only at the breast of a healthy nurse, the fits recurred every two or three weeks: but after going through the small-pox in a favourable manner, and being taken wholly from the breast, the fits soon disappeared, and the child was able to take all the light food usually given to infants.

If convulsions come on without any of the preceeding symptoms, they have generally been concluded to be a primary disease, and to proceed immediately from the brain. Some derivation from the head is therefore to be attempted, by bleeding if the child seems able to bear it; or by leeches behind the ears, on the temples, or inside of the arms; by blisters; purging; bathing the feet in warm water; friction of the legs, and rubbing the soles of the feet with the aqua ammoniæ. If children of two or three years old are subject to slight and frequent fits, issues or setons should be made between the shoulders, or in the neck, and be kept open for a length of time: and in weakly children chalybeate waters may be useful.

The idiopathic convulsion if not removed in a few days, is that from which future bad consequences may sometimes be expected, being followed by a temporary loss either of the sight, or hearing, and sometimes of the intellects. If the

former, it is attended with an unmeaning countenance and a constant stare and motion of the eyes. If water in the head be not particularly suspected, and the common nervous medicines, with purges and blisters have had no good effect, bleeding with leeches, and repeated emetics should be had recourse to; and if the bowels continue in a good state, the aqua kali, as a diuretic, may be made trial of.

Such are the usual remedies to which recourse has been had for the idiopathic convulsion; but of late years I have been led to make trial of musk; and from no small success, think I am warranted in strongly recommending it to the notice of physicians. And I am the rather led to this, because I conceive it to have been long out of repute as a remedy for children, and probably one that has never had a proper trial in their nervous affections; as in that case, we should expect it would have been noticed more particularly by the older writers.*

* It is not my intention, however, to assert that musk, has at no time, been frequently administered in these cases; though it is probable not very lately. I am not ignorant that many valuable medicines have been long neglected, in favour of others of the same class, and been taken up again at a future age. Practitioners, nevertheless, ought to state what has been their own experience of any medicine, in preference to others, after a fair trial of several, in particular complaints.

In some of the worst cases, however, of long continued convulsions, and fits apparently truly epileptic, not to be attributed to the usual causes of infantile irritation; as well as where all the customary remedies have been previously and unsuccessfully tried, a free exhibition of musk has restored children to health. And this not only where the long continuance of the fits has led good physicians to pronounce them idiopathic; but where the convulsions have also induced total blindness, or otherwise deranged the faculties for several months.—At least, I may assert, that an immediate abatement of the fits has followed the exhibition of this medicine, and in the end, the removal of all its ill-consequences.

But when the *idiopathic* convulsion attacks very young children, it generally terminates very soon, sometimes indeed, instantly; and in many is fatal before any means can be made use of; especially in the case of hydrocephalus. I have, however, often imagined that we are frequently mistaken in regard to such hasty deaths, and that when convulsions prove so suddenly fatal, they are more commonly *symptomatic*, and are occasioned much oftener than is suspected by over-feeding.—I have known some of the largest and finest infants I have ever seen, die suddenly in

the month, immediately after the nurse had boasted of their having eating three boats-full of victuals.

In this view of the disease, a few words more may not be wholly unnecessary, especially as they will hold out much comfort in regard to this alarming complaint; by which, I am however assured, many infants have perished merely from its not being properly distinguished. For though, indeed, all convulsion-fits are in their appearance exceedingly shocking, yet under proper treatment they are much less frequently fatal than is commonly imagined, however often they may recur,* neither is the frequency of their returns during infancy, nor the long continuance of such a disposition an indication of future evils, if the fits themselves be of the kind here supposed.† But though experience warrants my speaking with confidence on this head, with a view to

* The account in the yearly bills of mortality is especially erroneous in regard to this complaint, and has perhaps added to the alarm which the appearance of a convulsion universally occasions.

† The above observation is, I believe, strictly true in regard to such kind of fits; and though in some others, as hinted before, the intellects have appeared afterwards to be impaired, yet are the instances so very few, that there is, upon the whole, little room for alarm in the apprehension of such consequences.

prevent any unnecessary distress, yet would I, by no means, put the practitioner off his guard; since the recovery, in many cases, depends so entirely upon an expeditious use of the remedy, that even the time lost in sending abroad for a remedy may be fatal to the infant.

Fits of this kind are, indeed, pretty generally known to arise from irritating matter confined in the first passages, as has been already explained, but I believe it is not so generally understood, how often such matters are lodged in the stomach, (perhaps the pylorus itself;) or *very low down* in the rectum. Instances of the latter are not wanting, wherein the hardened feces have lain so low as to dilate the sphincter and sufficiently to expose them to view, and yet the infant been dead before a clyster could be procured from a neighbouring apothecary's; whereas such fits cease immediately after a plentiful evacuation from the bowels, artificially induced: so also have I seen an infant in the month, lying torpid for an hour together, in a kind of fit, and apparently in the very article of death, brought out of it entirely after a large and spontaneous discharge of thick feces. In like manner sudden death has taken place when the load has been in the stomach; whilst other children have been saved by spontaneously throwing it up. Whether in the former

case, the noxious irritation be in the rectum, which may, possibly, be doubted; or from the obstruction there, acrid matter be confined higher up, is not of any particular importance; the confined feces below, and their timely removal being, alike, the certain occasion, and remedy of the evil.

After what has been said, it would be scarcely necessary to point out the remedies in a formal way, but for the sake of directing the most expeditious manner of applying them. In the first instance, doubtless, the obvious means are a soap clyster with two or more tea-spoonsful of salt, (such articles being always at hand) and afterwards administering one or other of the purges formerly directed; which it may often be necessary to repeat for some days, perhaps with an interval between. But when an infant falls suddenly into a convulsion very soon after sucking, or feeding, especially if on any thing actually improper, and the bowels have been for some days in an orderly state, it may reasonably be presumed, that the irritation is in the stomach, especially if there be an unusual paleness of the countenance, indicating sickness; or on the contrary, any considerable blackness, with symptoms of suffocation; which I think do not come on so soon when the obstruction is in the bowels.

And it should here be remarked, that it is not necessary, that the load in the stomach should be considerable in quantity in order to induce such sudden and alarming convulsions; it is sufficient that the stomach be really oppressed by it to a certain degree; nor does it always appear to arise so much from an oppressive abundance, as from a small piece of undigested food, irritating, and perhaps confined as has been said, in the pylorus.

In the case here described it would be improper to think of a formal emetic, at least without making trial of some more expeditious means, such as irritating the pharynx with the finger, or a feather, or forcing in the smoke of tobacco, if that be at hand; either of which often instantly produces vomiting, and puts an end to the fit. To this end, the child should be supported by a hand placed under its stomach and belly, whilst the feather or other means are made use of; in which position the infant will be made to vomit more readily, and with less straining, than in any other.—It is hoped that the importance of the subject, as well as the very frequent success attending the plans last recommended, under the most alarming appearances, may be thought an apology for the length of this chapter, as well as the sort of repetitions made use of.

It is further to be noted, that symptomatic convulsions are sometimes the effect of a salutary effort of nature, to produce a crisis in some disease the child labours under; in which case, great caution should be used not to be over officious: bathing the feet in warm water, however, as mentioned before, will be perfectly safe, and perhaps useful. Having spoken of opiates, I shall just observe, that though they are often very serviceable, when judiciously prescribed, they become very hurtful if improperly administered. They will, however, always be safe, where convulsions continue after the first exciting cause has been removed; or where they are so violent as to become an obstacle to administering proper remedies; or when the original complaint is of a spasmodic nature. When arising from debility and languor, the tinct. valer. volat. administered in some generous white-wine, has been found a successful remedy.

When convulsions occur many times in a day, it is of importance to attend to the distance of the paroxysms; from which a much better indication may be had of their immediate danger, than from the forcible contraction of the muscles during the fit. For, where the intervals are short, though the fit itself be not long, nor violent, the disease is more dangerous than where

severe paroxysms are attended with long intervals.

PARALYSIS, *or* PALSY.

THE Palsy is a more common disorder in infants, and young children, than writers seem to have imagined, being confined to no age, (having been seen as early as the third day after birth) and attacking children in very different degrees, in the manner it does adult persons. It, accordingly, sometimes seizes the upper, and sometimes the lower extremities; in some instances, it takes away the entire use of the limbs it has attacked, and in others, only weakens them. Sometimes the speech is very much affected, and at others not at all; the intellect is also greatly impaired in some instances, and in others is only torpid; for though children may be dull and heavy, like other paralytics, yet when roused, their imagination is found to be fully awake to the common objects around them.

The palsy more commonly appears in the form of hemiphlegia; but if it be neither fatal, nor soon cured, it is often found to steal imperceptibly upon the other side of the body. In one instance, I was witness to the paralytic affection

quitting one side, to seize the other, only two days before the child died.

In any case, the palsy in young subjects is to be treated in much the same manner as in adults; and being usually attended with costiveness, calls for brisk purges in the first instance, and a repetition of opening medicines throughout the course of the complaint. And, indeed, if cathartics and blisters do not soon afford relief, the disorder usually becomes chronical, and the child sinks gradually in the course of a few months, or drags on a miserable life for ten or twelve years, with more or less debility of the arms or legs; but very rarely arrives at manhood. Indeed, the causes of palsy, particularly in young people, who are still growing, are so numerous, and are often so entirely out of the reach of art, as well from their nature, as their seat, being frequently in the nerves themselves, or the brain, that such an event cannot be wondered at.

But where no morbid change of parts has taken place, perhaps infants and young children are oftener perfectly cured than those more advanced in years, by the mere exhibition of two or three brisk purges, whereof calomel often forms a necessary part, as the palsy frequently originates from foul matters in the first-passages

After purging, blisters should be applied, and if no fever attends, nervous medicines be administered, such as valerian, castor, ammonia præparata, and the spiritus ætheris vitriolici compositus. In some instances, the bark and steel have proved useful; or frictions with flannel and aromatics, or ether, and the use of the waters at *Bath*; and as frequently as any other mean, electricity, especially if instead of giving shocks, the electric aura only be applied, or sparks drawn from the body seated in the insulating-chair. If the head be much affected, a small blister, or leeches applied to the temples may be proper, in certain habits.

When the palsy becomes chronical, more general remedies will be called for, according to the particular symptoms that may occur; but more commonly, remedies of the warmer class.

The palsy is sometimes occasioned or succeeded by water in the head; and in the former case, the futures of the skull being generally still open, and allowing of distention, the symptoms of compressed brain will not appear so soon as they otherwise would.

In the suspicion of hydrocephalus, mercury, and diuretic medicines may be made use of; though it is to be feared, with but little prospect

of success, when the original disease has proceeded thus far.

I have noticed a few instances of a partial paralysis of one, or all the extremities; but this has always given way very soon. Besides teething infants, whom it has been said to attack, I have seen it in others who are older, and the finest children, and is then generally attended with a foul state of the bowels. In any case, the only remedies I have found necessary, have been calomel or some other purgative; sometimes an emetic, and volatile embrocation to the limbs. Electricity, I am told, has been advised in one instance; and if the complaint should not otherwise yield, may as properly be had recourse to in this, as the former instances.

SKIN-BOUND.

THIS being a spasmodic affection, and sometimes attended with the convulsion called tetanus, may very properly be noticed in this place. It is a disorder but little known either to the antient or modern writers, (and has been less understood;) being only twice publicly noticed, that I know of, until a few years ago. The one at the beginning of this century, in a still-born infant, in the hospital, at *Stockholm*, and

the other about forty years ago, in a *Neapolitan* girl of seventeen years of age, in the royal hospital at *Naples*; the successful treatment of whom, I think, may throw some light on this disease, hitherto so little known. The former is accurately described by UZENBESIUS, and recorded in SCURINGII, *Embriologia (de fœtu frigido et rigido,*)* but without adverting at all to its treatment. The case, as I since find, is transcribed into the *Ephemerid. Academ. Naturæ Curiosor. Cent. ix.*

The above is related in a manner importing it to be an uncommon occurrence, and the disease at that time little, if at all known: and though recorded in two distinct works, (the latter of which is rather consulted than regularly perused) the case seems to have been generally overlooked, and consequently the true nature of the disease remained nearly in its original obscurity. It was, indeed, not till a twelvemonth after my short account of it appeared, that this disorder began to engage the attention of the *French* physicians, in consequence of *Monsieur Andrij* being called upon to take the charge of the *Hospice des En-*

* The midwife is reported to have said, that this infant though born alive, felt as intensely cold and rigid when it came into the world as a piece of ice.—How this might be, I leave to the *Academy* of the *Curious* to determine.

fans trouvès at *Paris*. The disease indeed, had been often seen both in that hospital and the *Hôtel Dieu*, but having always proved fatal, little attention had been for a long time paid to it, till Dr. *Andrij* was elected physician to the first mentioned charity; since which time, no pains seem to have been spared in the investigation of it: and the subject having since been taken up by the Royal Society of Medicine, it is hoped additional light will be thrown upon it, if the distracted state of affairs in that kingdom can admit of the calm consideration of such subjects.

That the present account of the disease may be clearly stated, I shall first consider it as it has appeared in this country, in the manner I had long ago intended, and had actually drawn up before I was favoured with some further description of it, by Dr. *Andrij*.

It has, indeed, been much less common in this kingdom than on the continent, but is equally an hospital disease, and seldom met with but accompanied with some bowel complaint, and still more rarely appearing at the birth. It was first spoken of in public, I believe, by my friend Dr. DENMAN when a teacher in midwifery, and physician to the *Middlesex* hospital; whose unwearied attention to it there, though not with all the desired effect, does him more

honour than could have been derived from the most successful treatment of a disease less fatal than this has proved wherever it has appeared.

The *British Lying-in hospital* has been very little infested with it, and, possibly, by being solely appropriated to the reception of pregnant woman, which the *Middlesex* is not; the air of which may on that account be less pure and salutary.

The following Symptoms (Dr. DENMAN observes) “ have been considered as pathognomonic, or characteristic of the disease.

1st. The skin is always of a yellowish white colour, giving the idea of soft wax.

2d. The feel of the skin and flesh is hard and resisting, but not edematose.*

3d. The cellular membrane is fixed in such a manner that the skin will not slide over the subjacent muscles; not even on the back of the hands, where it is usually very loose and pliable.

4th. This stricture often extends over the whole body; but the skin is peculiarly rigid in the parts about the face, and on the extremities.

5th. The child is always cold.

* To me the appearance and feel of the skin have exactly resembled that of a person who has died during a very hard frost.

6th. The infant makes a peculiar kind of moaning noise, which is often very feeble ; and never cries like other children.

7th. Whatever number of days such children may survive, they always have the appearance of being dying."

This disease commences at no regular period ; but whenever it takes place it attacks several infants within a short time ; and chiefly those who may be in the last stage of obstinate bowel complaints, in which the stools are of a waxey or clayey consistence. It has been also remarked, that it sometimes makes its appearance as an *original* disease, and in that case more frequently, I think, within the first ten days after birth : a few children have even been born with it, and such have never survived many days.

I have seen the rigidity extending beyond the cellular membrane, so as to effect the muscles, but only those of the lower jaw, which became perfectly rigid : but this spasm or tetanus does not seem to be a frequent symptom, nor do convulsions extend to the extremities, as they are found to do in *France* ; nor have I discovered any extravasation in the cellular membrane after death, reported to be constantly met with in that country. Moreover, in no instance that I have heard of, has the disease been attended

with the erysipelatous affections uniformly noticed there.

The cause of this dreadful complaint, when either congenite, or evidently supervenient to disorders of the first-passages, seems to me to be a spasm depending very much upon a certain morbid state of those parts, and with which the skin is well known to have a peculiar sympathy. But when, though an original disease, it does not take place till some days after birth, which, I believe, is rarely the case except in large hospitals, and other crowded apartments; the irritating cause, in such instances, is probably seated in the sebaceous glands, and the disease seems to be an endemic of certain seasons, arising from that unwholesome air to which such places are peculiarly liable.

The means of CURE in this country, (where it has been said, the disorder is more simple,) have been different from those that have lately been found successful in *France*; but instances of recovery have been very few in either. When the disorder was first noticed, its treatment was confined to a strict attention to the state of the bowels, and rendering the several medicines very warm by means of the compound spirit of ammonia, which was administered every four or six hours; and was the only plan attended with

any success. Together with this, I after some time directed the frequent use of a warm-bath, and chafing the whole body afterwards with warm flannel; means which have since appeared to have been attended with the first instances of success in *France*, as will be noticed below.

As the disease raging so much in *France* differs in many respects from ours, it is very doubtful how far the plan of cure adopted there may be applicable in this country, and my own experience has hitherto not gone beyond the means I have mentioned: but I would venture to suggest, that in many cases, trial might be safely and properly made not only of carminative clysters, but also of a grain of calomel previous to the infant being put into a vapor-bath; and after a sufficient number of stools shall have been procured by these means, exhibiting other volatile and cordial remedies beside the spirit of ammonia; as well as antispasmodics of different kinds.

After the description given of this disorder as it appears in *London*, little more will be necessary, I apprehend, than to select the circumstances in which, it has been noticed, *that* in *France* is found to differ.

It has already been said, that it is more frequently attended with tetanus, and never occurs

without those appearances mentioned under the article Erysipelas infantile, especially the redness and hardness about the pubes, accompanied further with tumour and redness of the soles of the feet. But these parts, it seems, though of a purple red, are intensely cold; very rarely suppurate; but sometimes mortify.* In one very late instance, however, the infant was not cold,† but on the contrary, exceedingly hot. The legs, thighs, and soles of the feet were red and hard; but no mention being made of a *general* tightness of the skin, it is probable this child was affected only with the infantile erysipelas which appears amongst us.

Besides the above variations, the infants are said to swallow with extreme pain; the extremities, especially the legs, are much enlarged, and attended with a serous effusion in the cellular membrane, which we have not hitherto noticed:

* This is said to be the case in four or five children out of twenty, all of whom are found to die in a few hours after the gangrene has taken place; and become so putrid, that by the next day, the skin separates from every part of the body, so as to adhere to the hands of those who have occasion to touch them.

† One instance of this kind also occurred at the British Lying-in-Hospital; and in this case there was likewise tumour, hardness, and redness about the pubes, and different parts of the extremities.

and the disorder is said to rage most in the hotter months. One instance, however, of difficulty of swallowing, fell under my notice; the child, at least, refused the breast, and swallowed unwillingly whatever was offered it: but this infant scarcely survived the attack fifteen hours.—In *France*, it is further observed, that the infants die about the third or fourth day, or at furthest, on the seventh from the birth. It is probable, there is another and very material variation, in respect to the degree of stricture and immobility of the skin, which are not clearly expressed to be either so considerable or extensive, as in the disease I have been describing; but are more confined to those parts which become red and tumid. But in the instance recorded by SCURRINGIUS it was clearly otherwise, the infant being said to feel, from head to foot, like a piece of flesh dried in the smoke. This child survived a complete day, during which time it took no sort of nourishment, and never cried, nor made any kind of noise.

Upon examining a great number of dead bodies at the *Enfans Trouvés*, the serous extravasation is constantly met with; is of a deep yellow colour and fluid, but coagulates with heat; the fat is peculiarly solid; the glands and lymphatics, especially those of the mesentery, are

found stuffed, and the liver uncommonly large, with a great quantity of deep coloured bile in the gall-bladder; and the lungs are said to be loaded with blood, as well as to contain an unusual quantity of air.

The supposed CAUSE of this disease amongst them seems to me but ill accounted for; the complaint being attributed to the improper diet of the mother or her infant; or to cold it has taken at the birth: whereas, the coldness and rigidity of the skin seem to be but mere symptoms, and not the disease; especially as their children, like ours, are but rarely attacked from the birth. The disease appears to be a true endemic, arising from foul air, especially as it is found only to attack the poor, and particularly to infest the two large hospitals that are crowded above all others, and receive the lowest and most wretched part of them; of whose new-born children, it is supposed, one out of twenty is visited with this disease.

It has been hinted, that for a long while, little attention was paid to this complaint, on account of its constant fatality, six hundred infants sinking under it every year, in a single hospital; about four hundred of which are born in the *Hôtel-Dieu*.

But since Dr. *Andrij's* election to the *Hospice des Infans trouvés*, various means have been attempted both by himself and his colleague, Mr. AUVERTY; and amongst other means, the warm-bath, which appears to have saved the first child that was known to recover. Trial has since been made of blisters to the extremities, which succeeded also in the very first instance, as well as since in several others; so that, in the last year, they are reported to have saved five infants out of every hundred, more than in the preceding one.

Monsieur SOUVILLE, surgeon to the *Military Hospital* at *Calais*, has also given some account of this disease, in the *Journal de Médecine*, under the name of *Ædématie Concrète*, and observes, that it is a very common disorder in the Provinces, as well as in *Paris*. Under his direction, likewise, a warm, or rather vapor-bath, succeeded in the only instance wherein he had made trial of it.

And this part of the treatment agrees with the account of the *Neapolitan* girl to which I have alluded, as well as with the result of our further experience at the *British Lying-in-hospital* where the warm-bath, in one instance, was thought to hasten the death of the infant.

The former was read before the Royal Society, *May* 16th 1754. The disease was in this young woman exceedingly severe, the skin being so very rigid over the whole body, from head to foot, that she could scarcely move her eye-lids, or open her mouth; nor could she move any of her limbs without pain, as well as difficulty, though the rigidity was evidently in the skin and adipose membrane, and not in the muscles.

It may be sufficient to say, that the patient recovered, but not under a twelvemonth. The means had recourse to were the warm, and vapor-bath, mercury, sarsaparilla, and friction of the skin.

The warm-bath gave her great pain (as it was supposed, from the weight of the fluid) that after a few trials, she fell into convulsions, through her dread of it, as they were about to put her into it. But the warm-vapor very soon afforded relief by relaxing the skin, but very little, or no perspiration was produced; nor had she ever had the least from the commencement of the disease; but it was after the vapor-bath considerably promoted by the internal exhibition of twelve grains of quicksilver every day, with a decoction of sarsaparilla, assisted by constant warm-air, and frictions of the limbs.

How far any part, or the whole of this treatment may be successful in infants, to whom the complaint seems to be confined in this country, experience only can prove ; but it is presumed, that the means are worthy of trial.

TETANUS, or LOCKED-JAW.

THE TETANUS,* of infants, is an equally fatal complaint, and in this country nearly as little known as the foregoing. It is either idiopathic or symptomatic ; which distinction is of more importance in hot climates, where the latter is always found to be incurable. In some instances it has been confined to the jaw only, as in *Jamaica* ; in others, it has been attended with contraction and rigidity of other muscles of the face, and a peculiar fixedness of its features. Sometimes, the rigidity has extended to the neck ; and in one child I observed it to be spread so completely over the whole body, that the limbs could not be bent so as to place it advantageously in a vessel, somewhat too small, appropriated to a warm bath. It has already been

* This is the species which Nosologists have termed *Trismus maxillæ inferioris Rigiditas spastica*. Species 1ma. *Trismus Nascentium infantes intra duas primas a natiuitate septimanas corripiens*. Vide CULLEN. G. LXXIX.

observed that it is sometimes joined with the foregoing complaint, but rarely in this country ; and even then, the jaw partakes only of that kind of rigidity common to other parts.

In such instances of *Tetanus* as I have met with, the attack has not been earlier than the sixth, nor later than the ninth day from the birth,* (excepting one instance, early on the tenth ;) and as far as I could learn, the infants had not been costive, (which Dr. EVANS reports to be usually the case in *Jamaica*) nor apparently unhealthy : some, I remember, were remarkably strong and lusty children. It seems somewhat to differ, therefore, from the disease termed *Jaw-fallen*, in the *West-Indies* ; and in one instance appeared to have some resemblance to the catalepsy. The rigidity has stolen on in a more gradual way in some instances than in others, but has always been very great as far as it extended, from the moment it has been discovered ; so that in instances where the mouth has continued sufficiently open to admit my finger, I could not thereby depress the jaw. In some, the

* In the *West-Indies* also never later than the ninth day.— (Dr. James Clark.) In *France*, however, it is said to attack much older children, though rarely after two years of age. *Memoire de la Societè Royale de Medicine*, Ann. 1787 and 8.

eyes have been bloated, and the whole countenance much swollen.

The CAUSE of this complaint has been differently conceived of. Dr. EVANS, who has been very conversant with it, attributes it to costiveness, and thinks he has greatly prevented its frequency amongst the negroe infants, by purging them from the birth. Dr. BARTRAM of *Philadelphia** attributes this fatal disease to a want of swathing, or proper bandage to new-born infants, and to the application of scorched linen to the navel; but his reasoning, to say the least of it, appears to be very inconclusive. It has also been attributed to the cord being divided by instruments not sufficiently sharp. But the cause has at length been clearly ascertained, and happily its prevention, by Dr. JAMES CLARK,† who perceiving that those houses were free from this disease, in which there were no fires, very soon demonstrated it to be owing to the smoke from burning wood; the negroe-houses having no chimneys to carry it off.

It does not in this country seem to arise from constipation, or neglect of purging off the meconium, and much less for want of swathing,

* See the *Transactions* of the *College of Physicians* at *Philadelphia*.

† See his *Treatise on the Yellow-Fever*, &c. 1797.

but is owing, as I have always stated, and has since been demonstrated, as above remarked) to a certain state of the air; and the more so, as the disease appeared only once in the *British Lying-in hospital* during a great number of years, and then attacked several infants in a short time.—It has appeared again, however, in four instances since the above account of it was given in former editions.

The remedies attempted at the hospital were, the warm-bath; fomentations to the rigid parts; frictions with oil and camphire, and BATES's anodyne balsam; blisters behind the ears, and to the nape of the neck: an asafœtida, opium, calomel, the bark, and aromatic confection, have been given internally. It remains, however, to make trial of more cordial and tonic remedies as recommended by physicians in *North-America*, where the disease is more common than it is here; such are the oleum succini, musk, wine, and the cold bath: though concerning the latter, writers differ, Dr. CLARK asserting, that it has in no instance succeeded.

One infant, in whom the complaint was confined to the jaw, and who had less rigidity than any of the others, never looked ill, and had no convulsions in its limbs, died rather sooner than the rest, excepting the one attacked so late as

the tenth day, which was a remarkably large and healthy infant: this child after being five minutes in a tepid bath, of salt and water, fell into a more profuse sweat than I had ever noticed in any young infant, and died in a few hours afterwards, and only twenty-four from the attack. I have known only one child survive the third day, and that was not seized till the ninth from its birth, and at the end of the third week seemed to be recovering; but it had never been able to take the breast after the attack, and died when six weeks old, though, possibly, not altogether from this complaint.

EPILEPTIC-FITS.

THIS and some of the following complaints, as well as the two or three immediately preceding, which relate, some to the more early, and the others to later periods of childhood, are noticed successively in this place on account of their falling under the general class of convulsions; and it is presumed less improperly, on the whole, than ranking them according to the different periods of time in which they might take place.

Very few words, however, on the Epilepsy may suffice, as it is either pretty easily cured, or

usually continues through life ; and is too well known to require a particular description. An account of the various precurrent symptoms would be equally useless.—It may just be noticed, that the patient falls suddenly to the ground, and sometimes without any perceptible warning, or at all sufficient to secure him from injury ; and is usually much convulsed, especially on coming out of the fit, but frequently retains his senses the whole time.

I believe it sometimes takes its rise merely from foul bowels ; and certainly more commonly attacks children of a costive habit of body ; it should then be treated agreeably to the directions already given in such cases, and especially with active and mercurial purges : after which, the cortex peruv. vitriolum album, chalybeates, and sea-bathing may be serviceable. In other instances, especially in more advanced life, and towards the time of puberty, the epilepsy seems to be owing rather to a more sensibly nervous irritation. In such cases, blisters to the back of the neck may be useful ; and I have experienced much benefit from large doses of the powder of valerian, and opium ; and in one instance, from an infusion of savine, fennel seeds, and juniper berries ; but I could never

entirely conquer the complaint by these means ; but the oleum succini has, in several instances, perfected a cure in young subjects ; and where that has failed, I have succeeded with musk.

In the worst cases I ever met with, in which the fits were very long and violent, and sometimes to the number of twenty or thirty in a day, and the disorder of some years standing, electricity has very soon rendered them weaker, reduced their number to three or four in a day, and gradually to one in six weeks ; but did not entirely remove them. In such obstinate cases, it is generally supposed, that the brain is affected by some local or permanent cause, and a perfect cure is consequently despaired of ; though I have known the fits abate greatly after having continued for twenty years, and the subject of them afterwards become the mother of several children. But parturition, as well as whatever else may tend to debilitate the system, I have always found increase the number of the fits.

When this disease has attacked children of five or six years of age, and where no treatment has been serviceable, the complaint has very frequently disappeared suddenly about the time of puberty, and sometimes a year or two

sooner. Where it does not, it will probably continue through life, and now and then prove suddenly fatal, as I have seen in a late instance.

Dr. JOHN WILSON of *Spalding*, has lately strongly recommended the internal use of the *argentum nitratum*, in doses of gr. iijss, three times a day. And in the *Medical and Chirurgical Journal*, edited by Professor HUFELAND, is an account of a cure effected in a case of three years standing, by the *cuprum ammoniacum* given in the dose of half a grain a day, and increased to five grains daily.

Upon examining the brain after death, I have sometimes found water in the ventricles, and at others, a small point of bone as sharp as a needle standing out from the internal part of the *os frontis*, or from the *cella turrica*, (of which BOERHAAVE and others have recorded several instances) and was, doubtless, the true cause of the disease.

CHOREA SANCTI VITI, or SAINT VITUS'S DANCE.

I Shall be very brief also on this untoward disorder, which is equally well known, and though not often fatal, is like the former, I believe, rarely cured but in young subjects.

WORMS, and other foulness of the bowels in children, are likewise frequent causes of this strange convulsion; in which different parts, and especially the extremities are put into continual motion, giving the patient a very awkward appearance, particularly in his walk.

If the first-passages are the seat of irritation, the complaint must be treated in the manner noticed under the preceding article; and, indeed, in most cases, the cure should be begun by administering aloetic, or mercurial purges. But should the disorder appear to be owing rather to relaxation, as it sometimes is, the cortex peruvianus, chalybeates, and other tonics, especially the vitriolum album, and sea-bathing, are indicated, and are very frequently successful. I have also known it immediately yield to electricity; but in this case, it has been attended with other symptoms of palsy, which have come on suddenly. Electricity, however, has lately been very useful in a very extraordinary instance; but the complaint returning, yielded afterwards to a perpetual blister, on the os sacrum, directed by Dr. DELARIVE of the *Public Dispensary*. The pilulæ cupri were administered at the same time, in the dose of gr ß; but no benefit was perceived till the blister was applied. Dry-cupping has also been thought useful.

APHONIA SPASMODICA INTERMITTENS, or
TEMPORARY LOSS of SPEECH.

THIS complaint when it occurs in children, though it is not a common one, takes place between the fourth and seventh year of their age; is only a transient loss of speech, and is a harmless affection: for though it may recur for a length of time, I believe it never degenerates into a permanent disease. It is rather a difficulty in articulating, than a perfect loss of speech; lasts only for a few minutes, or at most, a quarter of an hour, and recurs frequently in the course of a day. It is thought to be somewhat of the nature of the chorea sancti viti, and to be occasioned by worms, or other irritation in the bowels; and sometimes by teething.

If neither the irruption of teeth, nor the exhibition of mercurial purges, and other remedies for worms should produce a speedy good effect, any advantage from other medicines is more doubtful; but the long use of the cold-bath, or perhaps time only, whereby a child may acquire more strength, usually removes the complaint. It may be proper, however, to make trial of local application of a stimulating kind during the paroxysm, or fit; of which remedies, the

most innocent is a lump of sugar wetted with lavender drops, and amongst the stronger, a decoction of the pellitory of Spain. Should these little remedies do nothing, and the complaint anywise increase, it appears to me, that electricity may be had recourse to with safety and propriety; but the disorder is too rarely met with to have furnished the opportunity of speaking from experience.

INCUBUS, *or* NIGHT-MARE.

IT will be sufficient barely to notice this affection, it being generally well known I believe, and requiring very little to be done for it; children either outgrowing the complaint altogether, or any occasional return of it, when older, being esteemed rather as constituting an unpleasant moment, than a disease requiring medical treatment.

The incubus, probably, arises from a spasmodic constriction of the diaphragm and muscles of the chest, taking place during sleep, and occasions a sense and dread of suffocation, and of some huge weight lying across the breast. When children, who happen to sleep with a bed-fellow, awake under the paroxysm, they are wont

to say that their companion has lain with all his weight for a long time across them.

The cause of this complaint seems to be flatulency in the stomach, and indigestion, and chiefly attacks children or young people of a delicate habit, and such as eat too freely of fruits, and especially such as are unripe; or who are in the habit of eating much supper, a short time before going to rest.

The paroxysms are of different duration, some children lying a much longer time in this unpleasant state than others; but in all, some degree of palpitation of the heart, lightness of the head, tremor, anxiety, or lassitude remains for some time afterwards.

The curative indications are to rouse and fortify. During the fit, volatiles and fetids may be applied to the nostrils; and as soon as may be, some antispasmodic should be administered internally. Afterwards, clysters, bitter purges, or emetics should be exhibited, as the state of the first-passages may indicate, and the cordial volatile medicines be continued. To these should be added proper stomachics, assisted by a nutritious diet of easy digestion, and cold-bathing, if not otherwise improper.

SINGULTUS, or HICCUGH.

THIS has been ranked among children's diseases, but it is, by no means, a complaint of consequence, as it sometimes is in adults, though it is, indeed, a true convulsion; and may, therefore, be noticed in this place. It occurs pretty commonly, indeed, in infancy, but seldom requires much attention, as it frequently comes on only after over-feeding; or in consequence of the over thickness, or sweetness of the food, and is one of their most harmless consequences; it offers another argument, however, for their prohibition. But when it depends on an acid state of the juices of the stomach, or occurs in long bowel complaints, it indicates a necessity for having recourse to the testaceous powders. Should it, however, continue for a length of time, the emplastr. ladani may be applied to the pit of the stomach.

The hiccough is an affection very incident also to more advanced childhood; but is equally harmless as in infants. It is well known, that it may be generally removed for the present, by any little circumstance that may serve powerfully to divert the child's attention at the moment, in a way of surprize, or otherwise. And

it may not be amiss to attempt it whenever the hiccough may return, in order to obviate the influence of habit, by which this affection may be increased. Caution only should be had not to make use of such violent means as might occasion any considerable alarm, which in children of an irritable habit, who are the more common subjects of the hiccough, might induce some greater evil than the one intended to be removed. A less known, and pretty certain remedy, is a small quantity of any powerful acid; lemon-juice generally answers very well; but a tea-spoonful of vinegar seldom or never fails in the accidental hiccough of youth, or of very old people.

STERNUTATIO, *or* SNEEZING.

THIS has likewise been mentioned by some writers as a complaint of young children, for which RHAZES prescribes refrigerants and anodynes; but it is certainly not a common one, and indeed, I have never met with it in the form of a disease. Should it so occur however, some one of the antispasmodics, such as musk, castor, or camphor may probably be exhibited to advantage.

It may be occasioned by looking too long against any strong light, as the fire, and especially the sun, or other very luminous body. It has already been spoken of as a well known symptom of the measles, and of many common colds, but in neither, I believe, requires any particular attention. It is mentioned here, only, because I would not pass over a complaint that has at any time been ranked among the disorders of children. But knowing nothing further of it myself, and having no idea of its being a complaint of much consequence in this country, I have not chosen, under such circumstances, to be a mere copier from others. If violent, however, it may be further worthy of attention; when in conjunction with other causes, it may lead to the rupture of some small vessels of the nose; which will be noticed in its place.

DENTITION, *or* TEETHING.

THE Complaints arising during dentition may next be considered, many of the foregoing being blended with it, the first-passages and the nervous system being always more or less affected. The state of dentition is likewise not unfrequently an occasion of many complaints afterwards to be mentioned, such as cough, fever,

the rickets, and even pulmonary consumption, and marasmus; under each of which heads, therefore, occasional references will be made to what will be advanced under this.

The time of teething is a most important period of the infant state, and subjects it to manifold complaints and dangers. Some writers, indeed, and particularly Dr. CADOGAN,* and Dr. ARMSTRONG, seem to think otherwise; and that teething is scarcely to be ranked amongst the diseases of infants. They have imagined that children, if otherwise healthy, would cut their teeth with no more danger than adults, who often cut the dentes sapientiæ, so called, without any difficulty, and always without hazard: they likewise observe, that many children get their teeth easily. But this argument must suppose the healthiest, and best-nurtured children to be, in all respects, in the same circumstances with adults, which is, by no means the case; as they are liable to fever, dangerous purgings, and even convulsions, from causes that would, in no wise, affect the latter: nor can they stand under some of those complaints so long as adults, nor endure the necessary remedies. For the same reason, the measles and

* See his *Essay on Nursing*, &c. and *Armstrong on the Diseases of Infants*.

small-pox carry off such numbers of infants, when attacked by them a little more severely than common, whilst young, and healthy adult subjects often struggle through the most dangerous and complicated kinds, when properly treated from the beginning. Not to mention, that very few infants who are unhappily affected with lues venerea, recover under any treatment, whilst adults are cured in the most advanced stages of the complaint, notwithstanding some parts may be actually mortified. I have, therefore, no doubt, that the time of teething ought to be ranked amongst the most hazardous to infants, and that the greatest attention ought to be paid to it; though, it is probable on the other hand, that Dr. ARBUTHNOT over-rates its fatality, when he says that one child in ten may be supposed to sink under it; at least, I believe that this is not the case where the symptoms are timely attended to.

Some late writers, and particularly Mr. LE FEBURE DE VILLEBRUNE, have conceived this to be a mere dispute about words; but the difference, indeed, extends much further. For though I would, indeed, by no means assert dentition itself to be a disease, and have made use of any such like expression merely in a popular way, yet am I confident it induces disease in very

many infants of every habit of body, and more especially, however strange it may seem, in the apparently healthy and robust. Indeed, weak and even rickety children commonly cut their teeth easily, though often very late; or if they should be harraffed by a purging, and other complaints, they, nevertheless, escape with their lives, while very lusty strong children are frequently carried off suddenly at this period, unless the teeth happen to find a very easy passage through the gums. The system, during dentition, being disposed to inflammation, such children much oftener fall into fever than the tender and delicate; like athletic adults, who are more disposed to inflammatory complaints, than those who are of a colder, but less healthy temperament: and it is by acute fever, or convulsions, that infants are carried off, who are well known to survive a thousand lingering and vexatious complaints, if their viscera are sound. It may be here observed, however, that convulsions more rarely take place where a fever attends.

There are also other circumstances that affect the process of dentition, among which the three noticed by HIPPOCRATES, I believe, are well-founded: "That infants cut their teeth more readily in winter than in summer; that such as are rather inclined to be lean, cut them more

easily than those that are very fat ; and children who are loose in their belly the most safely of all." RHAZES* and PRIMEROSE are of a different opinion in regard to the fittest season : but of the truth of the last of these observations there can be no doubt.

This period usually commences between the fifth and tenth months, and the process of the first teething commonly continues to the sixteenth at the least, and sometimes much longer. It almost invariably begins with the incisores of the lower jaw. Usually two of these are cut, and then the corresponding ones in the upper jaw. After two teeth in each jaw have appeared, it is in some instances a considerable time before the contiguous ones come out ; but sometimes, though not often, six or eight are cut in a hasty succession. The incisores are succeeded by the four molares, then the canini, and the last of all of an infant's first-teeth, their antagonists, or the eye-teeth ; making in all sixteen. This, it is well known, is the ordinary number of children's first-teeth, as they are called ; but some infants cut four double-teeth in each jaw, instead of only two, making the whole number twenty :

* Apud Sennert de Dentit. in *Prognost.* Sect. 5. Sennertus, however, endeavours to reconcile the two opinions, Sect. 5. of the above work.

and I have very lately known an instance of a child cutting twenty-four teeth ; and what is remarkable, another infant, its near relation, appears to be at this time cutting a twenty first tooth, and if really so, will likewise have twenty-four.

The above wonted order in cutting the four incisors appears to be owing to those of the lower jaw being less deep in the alveolar process, as well as thinner and sharper at their points, and therefore likely to force their way before those in the upper jaw : accordingly, at least one of the incisors in the former is usually the first cut. The one opposed thereto in the upper jaw sometimes appearing next, rather than the contiguous one in the lower, seems to be occasioned by the friction of the prominent tooth, against that part of the upper jaw at which its antagonist is to appear. This attrition repeated every time the jaw closes, derives a greater portion of fluids to that part, increasing its natural action, and thereby forwarding the growth of the tooth ; while by the forcible and frequent pressure of the gums and periosteum against it, as soon as it has made its way through the bone, its irruption is further assisted. If the succession be otherwise, and a second tooth in the lower jaw be cut before one appears in the upper, as for the reason already given is more commonly the case, it is not un-

frequently before many days ; and the two corresponding teeth, in that case, either follow in two or three weeks, in consequence of attrition, or else do not appear for some months : but whatever the period may be, they generally come forward before any more teeth are cut in the under jaw. It is usually some weeks, it has been remarked, before the other two front-teeth in the lower jaw are cut, and in a week or two afterwards, if there be no constitutional impediment, the corresponding ones in the upper jaw are commonly pushed forward, and for the reasons given for the early appearance of the antagonists to the two first cut teeth.

In children who are strong and healthy, this process goes on pretty much as above described, and the teeth are cut both easily and soon ; but in unhealthy and weakly infants the process is both slow and uncertain. Accordingly children sometimes cut their teeth irregularly, or cross, as it is called, both by the teeth appearing first in the upper jaw, and also at a distance, instead of being contiguous to each other : this is accounted, and with some reason, an indication of difficult, or painful dentition. It may also be remarked, that the ease or difficulty of dentition may be guessed at, by the circumstances under which the two first teeth shall happen to be cut ;

the succeeding ones frequently making their way in a correspondent manner.

Teething is usually preceded and accompanied with various symptoms: the child drivels; the gums swell, spread, and become hot; there is often a circumscribed redness in the cheeks, and eruptions on the skin, especially on the face and scalp; a looseness, gripings; green, or pale stools, or of a leaden-blue colour, sometimes mucous, often thick and pastey; watchings, startings in the sleep, and spasms of particular parts; a diminution or increased secretion of the urine, sometimes of a milky colour, at others, staining the cloths in patches, as if it deposited a brown powder; a discharge of matter, with pain in making water, (imitating exactly a virulent gonorrhœa) which often mitigates the fever: in almost all cases, the child shrieks often, and thrusts its fingers into its mouth. A symptom less common than any of the foregoing, and appearing only in certain habits, is a swelling of the tops of the feet and hands: it seems, however, to be of no importance, and goes away upon the appearance of the teeth. I never met with it but in infants who cut them painfully; and being seldom accompanied with a purging, it is likely may (in its stead) prevent that fever which is otherwise so apt to attend. In some instances,

however, this symptom has been accompanied with considerable fever, but in such, children have either been costive, or the stools been fetid and clayey, and the swelling of the extremities very considerable. I have likewise, in a few instances met with a transient palsy of the arms or legs, which in one infant recurred as often as teeth were making their way. The above-mentioned symptoms are often followed by a cough, difficult breathing, fits, fever, scrofula, and marasmus; and sometimes by hydrocephalus.

Strong and healthy children, it has been observed, cut their teeth earlier than the weak and tender, but are more subject to fever. I have known a weak and rickety child, without a tooth at twenty-two months old,* though it lived to grow up; but at the age of five years became scrofulous. The fact, I believe, is, that the extremes of high health and of debility are both dangerous; the one being exposed to acute fever, or convulsions, the other to a slow hectic and marasmus. Therefore air, exercise, wholesome food, an open belly, and every thing that has a tendency to promote general health, and to guard against fever, will greatly contribute to

* PRIMEROSE speaks of it being as late as the third, or even fourth year.

the safety of dentition, and to children passing quickly through this hazardous period.

Difficult teething is to be treated nearly as other acute diseases with local inflammation. If the body is at all bound, some opening medicine should be administered, and it has been observed, that even a considerable degree of looseness is useful. Diluting drinks are likewise very necessary; especially if the child does not suck; also a light food, in small quantities, and taken frequently. If much fever attends, the loss of a little blood, in some way, will be necessary; though children do not endure bleeding so well as they do other evacuations. If the propriety of bleeding with the lancet be doubted, a leech or two, as HARRIS advises, may be applied behind the ears, and is generally serviceable. Clysters are also very useful, especially if there be retention of urine, which will likewise call for the use of the warm-bath. Gentle diaphoretics are also serviceable, particularly *vinum antimonii*, or the *antimonium tartarifatum*, which besides opening the belly, often operate in this way: a blister should likewise be applied between the shoulders, especially if there be any disposition to fits. And, indeed, if stools do not afford some considerable relief, there should generally be some discharge from

the skin; since a purging, and eruptions on the skin, when spontaneous, are the grand means of easy dentition. A little discharge should, therefore be kept up behind the ears, by rubbing the parts with Spanish flies, applying a thread as before directed, or putting on a small blister, which may be kept open. A Burgundy pitch plaister laid on the back will sometimes suffice, which should be renewed every ten days, till the symptoms disappear, or the teeth come into sight. Even before this period, slight scarifications of the gums are very useful, by taking off the tension; or if the teeth are at all to be felt, lancing them.

I shall close what I have to offer on the general plan of treatment, by observing, that the indications certainly are to assist the irruption of the teeth, and to moderate the inflammatory and other symptoms; which must be treated according to their kind: all parts of the body readily consenting with the gums at the time of teething, but the nerves, the bowels, and lungs, more particularly and importantly than the rest. It has been observed, that a purging is beneficial, and it is, indeed, surprising how considerable a diarrhoea children will stand on this occasion, and how very bad the stools will often be for many weeks together, and a child happily struggle through; though at another time, an equal de-

gree of purging, with such bad stools, and constant fever, would prove infallibly fatal. The diarrhœa is therefore, not only to be cautiously treated according to the directions already given under the article of purging, but is oftentimes rather to be encouraged than suppressed. Very pale stools have been said to be not uncommon at this time, and are sometimes in vast quantity : I have known an infant have fifty in one night, at least by the account of a careful and discreet nursery-maid ; and from the quantity of feces that I saw the next morning, I had no reason to dispute it.

For the fever of dentition, besides bleeding, the absorbent powders are eminently useful, and are, in various respects, calculated to afford relief. To these, sometimes a grain or two of Dr. JAMES's powder may be added at bedtime. Nitre is very often useful, joined with the testaceous powders, or the pulvis à contrayerva comp. SYDENHAM directs the compound spirit of ammonia in a spoonful of water every four hours, for four or five times, and I have thought it very serviceable after proper evacuations. Nor is a drop or two of laudanum to be feared, if the bowels have been previously opened, the pain be very great, and the breathing not difficult.

A free discharge from the bowels, however, must above all be preserved, when children cut their teeth with fever. The state of their gums must also be carefully attended to, or their fevers will be mistaken, and attributed to cold, or other causes, when the source of irritation is wholly in the gums.

The lungs, it has been said, is one of those parts on which the irritation from teething is apt to fall, and when fixed there, the symptoms bear an alarming aspect. A precise acquaintance with their true cause is therefore of the greatest importance; or for the want of it an unsuccessful plan of cure will be adopted. I speak this from much experience, having known good physicians overlook the true cause of the inflammatory symptoms; especially when children have cut the usual number of first-teeth.

In such cases, I have met with the most alarming peripneumonic symptoms; soreness of the chest, cough, and great difficulty of breathing, with loss of appetite, continual fever, and the appearance of general decay. In this state, purging the bowels, and properly lancing all the suspected teeth, has given immediate relief; and by keeping up the purging for three or four days, every threatening symptom has so thoroughly subsided, that in a fortnight's time, a child ex-

pected from day to day to die of inflammation, or fall into marasmus, has been restored to its former health and spirits.

A principal indication, it has been said, is to assist the eruption of the teeth. This is attempted by cooling, sedative, and demulcent applications made to the gums; by rubbing them with some hard polished body, such as the coral, or by dividing them with the lancet: which last is the only means to be depended upon. Rubbing the gums, however, I apprehend, not only somewhat appeases pain, as adults sometimes experience in the common tooth-ach, but it also forwards the growth of the teeth, by drawing more nourishment to them; as well as assists their irruption, by pressing the gum and periosteum firmly against their points. Suitable application on this occasion may be, either mel. com. or fyr. papaver. albi; or the honey may be lightly acidulated with the acid. vitriolic dilut. Besides the coral, a crust of bread, or a piece of liquorice-root may be often carried to the mouth, and may sometimes be preferable, as they will yield a little to the pressure of the gums.

These means, nevertheless, and especially the coral, have been objected to by some modern refiners; but the objections are certainly groundless, as in giving this direction we are only fol-

lowing nature. For the young of all animals who suck as soon as the teeth begin to shoot are always strongly inclined to gnaw such things as afford a little resistance. This may be every day observed in domestic animals; to prevent which in puppies, recourse is had to a ridiculous operation of worming, as it is called, which rendering the mouth a little sore, may prevent them for a time from gnawing every thing that comes in their way: and if their gums become easy, or teeth are cut the meanwhile, they have no longer any desire for it, but what arises from the playfulness of youth.

When it is found necessary to lance the gums, (which is ever, at least, a safe operation,) it should be always done effectually, with a proper gum-lancet; that both the gum, and the strong membrane that covers the teeth may be sufficiently divided. The lancet should always be carried quite down to them, and even drawn across the double teeth. It is certain, that this little operation gives scarcely any pain, and the relief is at the same time often so considerable that the child appears exceedingly pleased with it, and will immediately afterwards squeeze the jaws and grind them together forcibly; which proves that the gums are not very sensible.

The most painful part of dentition, and that in which children are most exposed to convulsions, is usually from the teeth cutting through the periosteum. This, I apprehend, in difficult dentition is often not cut through, but is forced up before the teeth, when they are even in sight under the thin gum; hence it is, that cutting through the gum is so very often useful, and takes off fever and convulsions, which severe symptoms could not arise merely from teeth piercing the gum, which it has been said is not a very sensible part. At other times, the pain and fever seem to arise from almost the very first shooting of the teeth within the jaw, and then they will very often not appear for some weeks after the gums have been properly lanced; and parents are therefore apt to conclude, the lancing has been unnecessary, if not improper. I am, however, convinced from experience, that this little operation, though not in the general esteem it ought to be, (and by the *French* physicians perfectly dreaded even in this day),* is often inexpressibly useful, and appears to have saved many lives, after the most dangerous symptoms had taken place, and every other mean of cure had been made use of. The mere bleeding from the gums is capable of affording

* See *Lientaud*.

some relief, as it is frequently found to do in adult persons distressed with the tooth-ach. And I cannot here forbear expressing my surprize at the fears some people entertain of lancing the gums, and their delaying it so long, if not altogether rejecting it, though no evil can possibly arise from the operation. On the other hand, its advantages are so great, that whenever convulsions take place about the usual period of dentition, recourse ought always to be had to it, after an unsuccessful use of other means, though by an examination of the gums there may be no certain evidence of the convulsions being owing to such cause; the irritation from teething, it has been remarked, sometimes taking place in a very early stage of the business. At any rate, (it is repeated) the operation can do no harm, even at any period, and should the shooting of teeth be only an aggravation to the true cause of the disease, lancing the gums must be attended with advantage. But should teething be the proper and sole cause, it is evident how fruitless any other mean of relief must frequently be: for should convulsions, for instance, take place from a thorn run into the finger, or toe, the proper indication of cure, by an immediate extraction of the thorn, and the probable futility of other means, would be equally obvious.

The operation may also be safely repeated,* the scars doing no kind of harm. This, however contrary to popular prejudice, may be very evident, not only from the fact of infants cutting their first teeth very easily some weeks after being lanced, but also from the circumstances under which the second teeth are often cut. At this period, children from their more advanced age, and decreased irritability, are less subject to fever, and evidently appear to suffer far less pain, than in the first teething, though the second teeth often have to make their way through much more considerable scars than have been made by a lancet, from the gums having been lanced prematurely. This fact is likewise established from the many instances in which dentists have thought it expedient to draw out the first teeth long before the second are prepared to take their place.† The objection to lancing the gums from any apprehension arising from the scars, is, therefore, altogether ill-founded; and indeed, it will be

* See page 154.

† This practice is, by no means, adduced in a way of approbation, but merely for the sake of the inference drawn from the fact; the writer being persuaded, that the succeeding teeth are thereby frequently ill-placed, by one tooth appearing long before others, and growing so large as not to allow proper space for the rest.

frequently necessary to lance the gums several times, as before remarked, especially on account of the extraordinary difficulty with which some infants cut their double teeth, which are furnished with two or more knobs, or points. Purg- ing, fever, and even convulsions will sometimes arise from only one point of a large tooth offend- ing the periosteum that covers it; and being nearer the surface, than the other points, the lancet may sometimes not completely divide the membrane that lies over the rest, (or it is after- wards healed;) and this part not being injured by the tooth, the symptoms subside on having divided that portion of membrane that was in- flamed. But in a little time, another point of the same tooth is found to irritate the perios- teum, and calls for the like assistance of the lan- cet, which again removes all the complaints. This, at least, I have conceived to be the pro- cess, when I have found lancing a large tooth immediately remove every terrible symptom, though the fever and other complaints have re- turned, and the whole of the tooth not appeared till the operation has been three or four times repeated. I have seen the like good effect from it, when children have been cutting a number of teeth in succession, and have bred them all with convulsions. Nothing having relieved or

prevented these terrible symptoms but lancing the gums, which has removed them every time it has been done, one or more teeth appearing a day or two after each operation.*—In such cases, it has been said, it will often be proper to draw the lancet along a great part of one, or even both the jaws, instead of over only one or two teeth.

Some writers, however, and Dr. MILLAR particularly, have advised not to cut quite down to the teeth, but only to scarify the gums, unless the teeth are very near. He suspects that the instrument often injures them, and produces caries, which he thinks will be communicated to the succeeding set of teeth. But this is mere theory, and I apprehend arises for want of duly attending to the state of the teeth, which are perfect bone, and covered with a strong enamel, long before they get through the gums. The manner of the second teething of children likewise forbids such a fear; for though the first set, (which are designed by nature to be only of short duration) should actually be injured by the lancet, the succeeding ones are not at all likely to be affected by the carious state of the

* Precisely similar remarks have been made by Mr. HUNTER. See his *Practical Treatise on the Diseases of Teeth*, page 121.

former. For the first teeth of infants constantly become carious at the roots, and are loosened and expelled by that means, when left to nature alone; and though the upper parts of the new teeth are in contact with the carious bottoms of the first set, they never suffer from this circumstance. I have dwelt the longer on this head, because writers are not agreed on the subject, and it is a matter oftentimes of no small importance. I have, however, written from *experience*, and am *perfectly satisfied* of the propriety and safety of what I have ventured to recommend.

It should be a pretty general rule during the time of teething, to abate a little of the usual quantity of the food, and to increase the quantity of drink, unless the child is very weakly, or every thing is going on perfectly well: or if the child be at the breast, a similar regard ought to be paid to the diet of the nurse.

Children will sometimes have ulcerated gums in teething, and more frequently where they have not been lanced; which are easily cured by keeping the body open, and touching them with astringent applications. As much white vitriol, or roch alum as will give a moderate roughness to a little honey is usually sufficient for this pur-

pose. But should this fail in any case, it must be treated as directed under the head of Canker.

FEVER.

THOUGH some writers have supposed infants to be as liable to Fevers, as adults, and from the same causes, I have, by no means, found it so; having observed for many years, as well in the hospital, as in private practice, that infants do not readily take common fevers, though exposed for a long time to that contagion which has appeared to affect adults around them.* Their fevers are also of a short duration if properly treated, unless the few that arise from some more permanent irritating cause.

Young children, however, are disposed to certain febrile complaints, and to some peculiar to themselves; which, as this work is now considerably enlarged, with the design of embracing all their complaints, I shall bestow some pains in specifying, as well as pointing out the treatment most adapted to each.

* Every physician attending lying-in-hospitals, must not only have known many infants suckled, without injury, through the whole stage of bad fevers from which mothers have recovered, but also, in other instances, sucking greedily within an hour or two of their mothers death.

The more frequent Causes of fever, are teething, foul bowels, worms, glandular diseases, some eruptive and very contagious complaint, or taking cold; and are often attended with symptoms peculiar to children. If from the last mentioned cause, and the cold be severe, it will always be attended with a cough, and hoarseness, and some difficulty of breathing, and often with running at the nose or eyes, which will distinguish the fever from all others, except it be the measles; which will be attended likewise with violent sneezing, and a peculiar appearance of the eyes not often met with in a common cold.

If a fever from cold be considerable, the cough violent, and the difficulty of breathing very great, a blister will always be safe and expedient, and may be applied at the pit of the stomach instead of the back, as being both less painful under any motion of the body, and more readily got at to be dressed, or for the application of fresh cloths, where the discharge happens to be considerable. But if the fever and difficulty of breathing should not be very much abated by the blister, children, though within the twelvemonth, will bear and even be greatly benefited by the loss of a little blood,* and if

* In mittendo sanguine, non tam annos medicus numerare,

not by the lancet, at least by the application of two or three leeches, as I have frequently seen; and I mention this again, because it has been thought so highly improper for infants. But I can venture to say, they will be much less reduced by it, than by the continuance of the fever, which the loss of a little blood will, in many cases, shorten by two or three days: it is also sometimes absolutely necessary, as in peripneumonic cases, in which it may even be repeated with safety and advantage*. Indeed, in some instances the only mean of saving an infant's life, is taking away at once a sufficient quantity of blood, at the commencement of the peripneumonic symptoms. And this becomes the more expedient, from the consideration that not only inflammation, but true tubercles of the lungs are formed at a very early age; having

quam vires ægrotantis æstimare debet. CELSUS. Lib. ii. cap. 10. p. 78.

GALEN indeed forbade bleeding till after fourteen years of age, but since the time of CELSUS, that absurd idea has been exploded. RHAZES permitted cupping after three or four months; AVICENNA at a year old.—Some allowed of bleeding in the feet or legs, though not in the upper parts; but this useful operation is now justly unconfined, and extended, occasionally, to every period.

* *Multa in præcipiti periculo rectè fiunt, aliàs amittenda. Id. Lib. iii. cap. 18. p. 150.*

myself seen them, after death, as will be further noticed on the mesenteric fever. Oily medicines, likewise, made into a neat emulsion, are often useful, especially if the child be not suckled; but they should be preceded by an emetic of wine of antimony, as there is usually much phlegm on the stomach; children never coughing it up. In many cases it is also necessary to repeat the emetic, as often as the phlegm in the throat is collected in such a quantity as seems to impede respiration. But if the cough be dry or convulsive, BATES's spirit. sal, ammoniaci succinat. may be safely and usefully administered, if there be not much fever. The body at the same time should be kept perfectly open, and this purpose is usually well answered by smaller doses of wine of antimony, or of Dr. JAMES's powder; but if they should fail to procure stools, as they sometimes will, where there is much fever they rather do harm than good, unless a little manna, or rhubarb be joined with them.

Though the severer treatment above-mentioned is indispensable when the cough, difficulty of breathing, and degree of fever are considerable; it is proper here to remark, that I have known children of two or three years old seized with a sudden difficulty of breathing in coughs arising from common colds, where the fever has not

been proportionate to the other symptoms. In such cases, the difficulty of breathing may arise from bile on the stomach, and it may therefore be prudent previously to bleeding and a blister, to give a small dose of JAMES's powder, which will pretty certainly act as a vomit, if our suspicion has been just; and will remove that threatening symptom very soon.

It is scarcely necessary to remind the reader, that preparations of antimony are very powerful medicines, and not to be prescribed indiscriminately as they sometimes are by those who are, in no wise, competent judges;* and against which practitioners will do well in offering a caution in the nursery. But where such medicines are found to agree, and keep the belly open, children frequently stand in need of no other; though where the fever has been very considerable, I have given nitre to advantage to infants of only a few months old. In the little fevers arising from taking cold, to which some children are very liable, I often join it with Dr. JAMES's powder, and a few grains of the compound powder of contrayerva, lowered with testacea; which I find to be a medicine exceedingly useful,

* A nurse very lately proposed giving half a grain of tartarised antimony to an infant of a few days old.

when given in time.—If the head is much affected, putting the feet into warm water, or applying a milt to them just taken from the animal, are admirable remedies; and I think have sometimes saved a life after all hope had been given up. Or a little fresh leaven, or dough, as advised by Mr. *Le Febure de Villebrune*, may be spread thinly over the soles of the feet. If the fever be accompanied with much cough, and attended with difficulty of breathing, which comes on by fits, both may be greatly relieved by the compound spirit of vitriolic ether, given three or four times a day.

If the fever be not owing to taking cold, to worms, teething, or some eruptive complaint, it will generally be found to arise from some foulness in the first-passages, in which case, opening the belly, and afterwards giving an emetic, and the testaceous powders, usually remove it. On this account, great attention ought to be paid to the state of the bowels, and not only in regard to the number of stools, but their kind. This should be a maxim with all those who have the superintendence of children, especially infants, under whatever complaints they may labour; as a principal indication must be taken from the state of their bowels. In the present instance, if a laxative and emetic have not removed the

fever, opening medicines must be continued a while longer, especially castor-oil; but if the stools are very fetid, the pulvis è scammonio cum calomel. or small doses of calomel alone, are the fittest purge. I have known not only convulsions, dilated pupils, and drowfiness, but also paralytic affections, attended with great pain and continual fever, induced merely by a foul state of the bowels; where, after the complaint had been unsuccessfully treated as a fever of another kind, all the symptoms have been removed at once by an active purge. Even infants of only three or four months old will often have very considerable fever, and fits, with so costive a state of the bowels as to require strong purgative medicines to be repeated for several successive days, with clysters and the warm-bath, before the obstruction can be removed, or the fever will at all abate. And I doubt not, it may be matter of surprise to those who may not frequently have met with such cases, to find how great a quantity of purging medicines have been taken by a tender infant before one proper stool could be procured,* and how certainly a relapse will take place, if the opening plan be not persevered in, in the manner recommended.—In

* See pages 23, 24.

less urgent cases, and especially in very young subjects, much gentler means will usually succeed, and after the belly has been once or more well opened, many common fevers will nearly subside; after which, it will frequently be proper to return to the testaceous powders, in one form or other. These will compose an admirable medicine for very young children, as well under little fevers, as for almost all their complaints not attended with costiveness. This, the judicious HARRIS was so sensible of, that he thinks them alone sufficient to effect almost every thing during the *infant* state, and has done unspeakable service by abolishing that *indiscriminate* recourse to cordial, and other heating and rough medicines, such as mercury, aurum fulminans, theriaca, &c. together with various anile and superstitious remedies, which the ancient writers frequently recommended on occasions peculiarly improper. And though absorbents will not do every thing he has imagined, yet there are very few medicines of such general use. But should the fever withstand these common remedies, or be found to increase, it will be necessary to give some of those before recommended, or what is often very useful, little draughts of succus limon. and kali ppt. in which the latter is left a little predominant; or a few drops of the spirit. ammoniæ

comp. four or five times a day, as recommended for the fever of dentition.

In many little fevers of infants, where the cause has not been so obvious as it commonly is, I have experienced very good effects from persevering in the use of small doses of the *vinum antimonii*, given in a saline draught; this medicine sometimes acting as an emetic or purge, and at others, as a stimulant and diaphoretic, possesses peculiar advantages. But the manner in which this medicine is directed to be prepared in the new pharmacopœia, under the title of *vinum antimonii tartarificati*, renders it exceedingly preferable to the common antimonial wine; and may be frequently given in the place of the *pulvis antimonialis*, in the dose of five or six drops, to a young infant; or in the dose of three drops, instead of five of the old antimonial wine. It will be necessary, however, as noticed on a former occasion, that the bowels be somehow kept open under the use of this, and of every preparation of antimony.

There is a fever to which children long after the time of teething are liable, that is of no marked type, and turns out to be owing to foulness of the *primæ viæ*; but rather from the acrid secretions from the liver, or other glands, than from a collection of feces, or a costive habit,

and is more remarkable for the great pain in the bowels than for any other symptom.

It commences like other little fevers in children, and is of uncertain duration. The pulse is oftentimes exceedingly quick, the breathing bad; the tongue dry and brown; with a cough more or less violent, throughout the complaint. On this account, it is in the beginning often suspected to be owing to taking cold; but the cause, I believe, is always in the first-passages.

Though procuring stools freely for several days is found to abate the fever, yet the child is at no time entirely free from it; though it frequently remits.

The stools, which at first are very fetid, in a little time become very numerous, mixed with a great quantity of slimy matter, and are attended, or followed, by very great pain. This has sometimes discouraged practitioners from further purging; but where no other source of fever is discovered, and cooling and antimonial medicines are found to afford no essential relief, the exhibition of repeated purges has proved the surest remedy.

To this end, two or three grains of calomel, taken every night, and infus. fennæ the next morning, has seemed to have the best effect, in the earliest stage of the disorder; but after the

severe pain and slimy stools have taken place, castor-oil may be substituted, and given only every second or third day; composing the bowels, and taking off the spasmodic pains, by repeated doses of laudanum, on the intermediate days, and especially on the nights after the operation of purgatives.

This plan should be continued until the fever entirely subsides, (which will sometimes run out to two, or even three weeks) and the appetite for food returns. Previously to which some light bitter, given in a saline draught or *lac amygd.* or with the *pulv. è tragacanth. comp.* in the intervals of purging, will tend to comfort the bowels, and hasten the natural inclination for food, to which there is often a long aversion.

There is a fever which may be just hinted at in this place, which will be more particularly noticed in the chapter on hydrocephalus, for which also repeated purging is the remedy.—The symptoms strongly resemble those of water in the head, but the stools are of a very uncommon appearance, resembling meconium; which, however, resist common purges, but are brought away in great quantities, and for a considerable time, by calomel; the fever and stupor abating in proportion as this kind of stool is brought away.

On the decline of some fevers, especially those arising from foul bowels, it is not uncommon to see an eruption on the skin, resembling that called the red-gum, in the month, and sometimes even the thrush will make its appearance, though the infant may have had that complaint before; which are marks of the great disturbance the first-passages have suffered, and of the consent they have with the skin: the former, it has been said, is always a favourable indication, but the observation is far from holding good in regard to the thrush.

At the decline also of certain anomalous fevers that have lasted for ten or twelve days, (and sometimes after the *febris scarlatina*) great pain of the neck has taken place, attended with a little tumour of the part, and great rigidity of the muscles, drawing the head forcibly to one side. A general debility, and want of appetite has continued, though the bark has been administered, and seemed no wise to disagree. In this state, fomentations and poultices applied to the neck, together with some volatile embrocation, has soon removed the contraction, and pain; after which children have recovered as on a sudden their appetite and spirits.

During very cold weather, I have known a slighter degree of pain and stiffness of the neck,

with a little fever, return a week or two afterwards; possibly, from taking cold, and as I have thought, from improper food. The antimonial powder with saline draughts, and a repetition of the topical applications, have in such case had an immediate good effect.

I have sometimes met with a fever, more remarkable for its being attended with inflamed and sometimes painful tumours, than for any other symptom peculiar to it. These are seated chiefly on the legs, and particularly along the spine of the tibiæ; and rise in a day or two to the size of a nutmeg. They are marked with all the appearances of abscesses, feeling as if they contained matter, and on this account, they put on a formidable aspect to such as may not often have seen the disease; but what is remarkable, they never, I believe, come to suppuration, unless irritated by the clothes or other means, but disappear again in a few days, though the fever sometimes continues. The like appearances have been met with in adults, especially females, though perhaps more commonly in children from three to ten years of age; but are not peculiar to scrofulous habits, though the tumours have very much of a scrofulous appearance and feel. As far as my experience has gone, (for I believe it is not a very common

complaint) they are conjoined more frequently with that fever which attends a foul state of the bowels, than with any other; which therefore requires repeated purging, especially with calomel: and on this account, the pulvis è scammon. cum calomel. becomes a convenient preparation. Saline draughts with the spir. ætheris vitriolici comp. may be given on the intermediate days, and in the end the bark is commonly useful.

These appearances have sometimes been preceded by scarlet spots, or patches, resembling the petæchiæ observed in malignant fevers, as was noticed under the article of rashes.

Fevers in children of three or four years old, are sometimes tedious of cure by any of the above means, and like those of adults require the bark, (especially under the recurrence of the thrush;) which should be administered in a light decoction, three or four times a day, in such doses as the symptoms may require.

MESENTERIC-FEVER.

ANOTHER cause of fever has been hinted at, which is obstructed glands, especially the mesenteric; and is often a fore-runner of the true hectic fever, or fatal marasmus.

It, indeed, frequently arises from scrofula, which then discovers itself by other marks; and will require its peculiar treatment. But there is an early stage of glandular obstruction in the mesentery, and of the fever here alluded to, that is often falsely attributed to worms; but will not yield to mere purgative medicines, as that disorder usually does. It attacks children from the age of three or four years, the fever remitting, and sometimes intermitting, irregularly; is attended with loss of appetite, swelled belly, and pain in the bowels; the latter sometimes taking place, more or less, every day, or is generally more violent if the child be a day or two free from it.

After opening the bowels, half a grain, or a grain of calomel may be given to advantage, two or three times a week, and on the intermediate days small doses of the natron ppt. either alone, or neutralized with the juice of lemons, or in some instances partially so. If the belly be very costive, as it often is, an infusion of spong. ust. and fenna is more effectual than any thing; and is an excellent remedy for many little fevers, in older children, when the primæ viæ are particularly concerned. When the glandular fever, just now mentioned, has abated, some light bitter, as of chamomile flowers, is useful to

brace the stomach and bowels ; and to prevent a relapse, it will often be found necessary to administer some chalybeate, of which the *tinctura florum martialium* is one of the fittest for children : if it should offend the stomach, a few drops of the tincture of cardamoms, or other stomachic, should be joined with it.

But as the mesenteric fever, from its great fatality and frequency, has lately very much engaged the attention of writers, it may be proper to consider it a little more distinctly in some of its principal stages ; in each of which its nature and treatment sometimes materially differ. For before the mesenteric glands become much enlarged, or the fever continual ; whilst the appetite continues, and the first digestion is but little impaired, and no purging has taken place ; the opening mixture of sponge and fenna, with a few doses of calomel, and afterwards bitters and chalybeates, are the only remedies very likely to be called for ; and almost always succeed. In this state, the disorder may still be considered as in its first stage, and of which an unusual costiveness, the hardness and recurring pains in the belly, and a remitting fever, are the principal symptoms. The limits of this work, however, will not allow of a particular detail of the many others that attend this fever through its various

stages ; and it is presumed, they are so well known as to render it unnecessary. But in general, it may be said, that indigestion, costiveness or purging, irregular appetite, flushed cheeks, or a total loss of colour, impaired strength and spirits, remitting fever, and a hard and tumid belly, with emaciated limbs, are amongst the more constant symptoms attending, at one period or other of the disease.

This being a glandular complaint, not only are the glands of the mesentery affected, but I have found those of other parts, and especially of the lungs, in a very morbid state before any of those symptoms of inflammation have been noticed, which are constantly met with, in similar cases, in older subjects.*

* In examining the viscera of more than one infant of only a few months old, I have found tubercles, and even purulent matter in the lungs, which have not been preceded by any manifest symptoms of such mischief, and even where there has been no cough nor difficulty of breathing, until a few days before death, and then only so slight as to be scarcely noticed. In one instance, I found in some parts of the lungs tubercles as large as nutmegs, and in others, clusters of smaller ones, (and particularly about the superior and back part of the mediastinum ;) some of which were hard, and others full of matter.—Such appearances seem, therefore, to be common in all glandular diseases, to rickets, and similar disorders arising from cachochymy; GLYSSON having re-

Children are liable to this fever till they become eight or ten years old, (and in scrofulous habits much longer) it being often a consequence of the protraction of almost any of the preceding complaints, especially those of the first-passages and dentition, as well as of the measles, and a few others; of which that from teething will be separately considered. Among the poor, it is too frequently owing to a coarse and unwholesome diet; indigestion at the stomach, and a consequent vitiated chyle, with infarction, or obstructions, in some of the internal glands or lymphatics, being among the primary remote causes of the disease.

As prophylactics, therefore, good air, exercise, gentle frictions, an easy dress, frequent washings of the body of young children with soap and warm water,* the cold-bath in older children; and especially a light and nutritious diet, with such mild aromatics as may assist digestion, are some of the principal and most efficacious means.

marked, that he seldom examined the bodies of infants dying of rickets, without meeting with such appearances in the lungs.

* This idea is as ancient as the time of *Hippocrates*, who strongly advises it.

De Salubri Diæta. § IX.

But when this disease is completely formed, it calls for the most powerful remedies; and such have happily succeeded in several instances, wherein formerly little hope had been entertained.

As I have passed over many less important symptoms occurring in the different stages of this long disease, especially such as arise from some peculiarity of habit; I shall for the like reason confine these observations to the more general plan of treatment, without particularly noticing a variety of occasional remedies, which such symptoms may at different periods require.

In a general way, the principal indications are to remove the obstructions in the lymphatic system, and effect a resolution of the indurated glands of the mesentery; to carry off this viscid matter; and lastly, to strengthen the system, and establish a good digestion, as well by means of proper diet as by medicine. To accomplish these intentions, attenuants and deobstruents, purges, emetics, and tonics must be had recourse to, in due turn.

Amongst the first, and as general deobstruents, are mercurial and antimonial remedies, neutral salts, soap, steel, and the cicuta; to which, with propriety I think, may be added, electricity.

In regard to the efficacy of mercury and steel in this disease, a vast crowd of testimonies appears among writers,* in almost every part of *Europe*. And a very rational idea has been suggested on this head, by Mr. ROYER, that of administering mercury clyster-wise; inasmuch as the resolution of local and partial obstructions, does not so much require an exertion of the collected force of the system, as deriving all the influence of proper remedies to the seat of the disease: an idea of late years pretty generally received, and in some instances successfully adapted to the cure of scrofula, as well as some other chronical disorders.

Calomel is, perhaps, one of the fittest remedies of this class, and when administered by the mouth, may be combined with some purgative medicine, and given for several weeks, till there shall be some favourable change in the feel and size of the belly.

The lightest preparations of steel are usually preferable, such as its tinctures, or the salt, or merely some chalybeate water; which will act both as aperitives and tonics. Amongst antimonials, the kermes mineral is found by experience

* *White, Hartmann, Worlbos, Theden, Burchard, Baumè, Baumes, Roseen, Fouquet, &c.*

to be more generally useful than any other preparation.

The Evacuants mentioned as proper in this disease, were emetics and purges; to which may be added diaphoretics. The two former are more essentially necessary; but must be adapted and carefully dosed, agreeably to the state of the bowels of the patient. As a purge, rhubarb and tartarised kali are generally the safest and most effectual, and may be persevered in for the greatest length of time; or the composition which, in regard to many cases, has been deservedly extolled by Sir WILLIAM FORDYCE, rhubarb and polychrest salt; which, whenever mercury may not be preferred; should be exhibited daily for several weeks, and will sometimes restore the patient without recourse to any other means, when the disorder is not of long standing; being at once both a purge and an efficacious deobstruent.

As a Diaphoretic, sarsaparilla, or a more compound decoction of the woods; which may be taken together with any of the above mentioned remedies.

The last means recommended were tonics, which can very rarely be dispensed with; since although the obstructions should actually be removed, the emaciated state to which the patient

is generally reduced, peculiarly calls for bracing remedies, especially with a view to strengthen the stomach and alimentary canal, and promoting a good digestion; the only means of obtaining a bland and nutritious chyle, by which the body may be conserved in good health. To this end, the bark, steel, the cold-bath, (the latter of which, especially, should not be attempted till the obstructions are removed) light bitters and aromatics are the principal remedies; to one or more of which, recourse may be had, as the degree of remaining fever, and the state of the bowels, or the debility of the patient may point out. To these may be joined daily frictions, especially of the belly, limbs, and spine; or the common soap-plaster, or one composed of ointment of marsh-mallows, gum ammoniac, and oil of chamomile, may be applied over the whole belly: or the body be covered all over with sea-salt, reduced to a very fine powder.

It has been already hinted, that the diet ought to be of the lightest and most nutritious kind, and carefully adapted to the age and other circumstances of the child; who, if at a due age, ought in many instances to partake of light white meats, as well as vegetables, and plain jellies; but always avoiding fat and greasy aliments, pastry, and whatever may not be duly, as

well as quickly digested, or will not form a bland and nutritious chyle, however readily they may get out of the stomach.

Though in some instances, merely purging with calomel or rhubarb, for a length of time, has been said to succeed, and in others, some one of the above remedies may be more adapted to the patient than the rest; yet in general, each of them will be useful, at one period or other of the complaint, and sometimes the union of several: but above all, purging is always the most essential to the cure of this dangerous disease. And though it is oftentimes attended with costiveness and a voracious appetite, it is, at others, accompanied with a loathing of all food, and frequent stools, which do not reduce the belly, but too often deter practitioners from the use of active, or repeated purges; without which, however, experience proves there can be no prospect of success, after the belly has once become enlarged.—I shall close these observations with offering the following form, which in a general way I have found very suitable. It should be continued for a length of time, taking care that the bowels be kept properly open.

R. Calomelan. gr. j. ad. ij.

Pulv. Ipecac. gr. fs. ad gr. j.

Zingiber. gr. vj.

Misce, ft. Pilulæ iv, cum quantitat. sufficient. vel Conf. aromaticæ, vel Conf. opiatæ, ut alvi status postulet. E quibus sumatur j singulis aut alternis noctibus, vel omni nocte manè que. Post aliquod tempus addentur pulv. rad. columbæ grana octo vel decem.—Together with this pill, the cicuta will sometimes be very serviceable.

HECTIC FEVER *and* MARASMUS.

NOT a few both of the preceding and following complaints are sometimes found to induce a confirmed hectic fever, and marasmus, called by some writers atrophia lactentium; though it often comes on too late properly to admit of the name. I have nothing new, indeed, to offer on this disease when it is far advanced, unless it be by way of encouragement to hope for a better issue in the hectic fever, under certain circumstances, than we are wont to expect.

This fever, as it is apt to arise from other complaints, is very often owing to their having been imprudently treated, or imperfectly cured, especially by suppressing some eruption or discharge from the skin, or incautiously stopping a purging, during the time of teething. In such cases, and, indeed, whenever the hectic fever is of some standing, the mesenteric glands become indurated,

greatly increased in size, and often suppurate, the belly getting large, though the limbs and other parts become emaciated; which state has been considered in the former chapter, and has been shewn to be curable, or otherwise, according to the degree of induration, and the length of time it has existed. But there is sometimes a threatening appearance of hectic fever, where, nevertheless, nature effects a salutary and wonderful change, and will restore the emaciated infant as from the very jaws of death. And this, indeed, is often the work only of nature, art, doing no more than superintending, and preventing her being counteracted by the use of improper medicines, or diet.

Nature alone will, indeed, oftentimes effect wonders for infants, and far beyond any thing to be expected in adults, if she be not officiously counteracted. And the reason is obvious; it being well observed by a great man, and a good physician,* lately deceased, that “there is, in truth, a greater luxuriancy of life and health in infancy, than in any other period in life. Infants, it is acknowledged, are more delicately sensible to injury, than those advanced in life;

* DR. GREGORY—*Comparative view of the State and Faculties of Man, with those of the animal World.* 1785.

but, to compensate this, their fibres and vessels are more capable of distention, their whole system is more flexible, their fluids are less acrid, and less disposed to putrescence; they bear all evacuations more easily, except that of blood; and, which is an important circumstance in their favour, they never suffer from the terrors of a distracted imagination. Their spirits are lively and equal; they quickly forget their past sufferings, and never anticipate the future. In consequence of these advantages, children recover from diseases, under, such unfavourable symptoms as are never survived by adults. If they waste more quickly under sickness, their recovery from it is quick in proportion, and generally more complete than in older people; as diseases seldom leave those baneful effects on their constitutions, so frequent in adults. In short, a physician ought scarce ever to despair of a child's life, while it continues to breathe."—In further support of this sentiment it may be observed, that their complaints are not often attended with acute fever like those of adults, which however salutary in some instances, is, from mismanagement, or otherwise, more commonly disposed to break up the system, than to rectify the machine.

The above mentioned salutary turns in the true hectic fever, as far as I have observed, are

chiefly in that species of it arising from worms, or teething; and which I have known recoveries after hope had long been given up, and all attempts been laid aside. There is, indeed, an atrophy in infants for want of the breast, or from the unsuitableness of it, (which is the true *atrophia lactentium*) or of whatever else may be the child's ordinary food, as I shall instance in another place; but this is not usually attended with fever, and is to be cured merely by making that change, which the nature of the different occasions point out. HARRIS recounts some remarkable recoveries in what he calls the *atrophia verminosa*, and attributes the cures to the free use of the *hydrargyrus cum sulphure*, carefully prepared: but I have seen none so marvellous as in the *atrophia dententium*. In this, I have known children after being reduced by purging, and other complaints, lying for three months together in the cradle, scarcely fit to be moved, with continual fever, flushed cheeks, emaciated countenance and limbs, a large belly, incessant cough, and almost without taking any nourishment, recover, as it were in a few days, upon unexpectedly cutting half a dozen teeth.

After what I have said on the true hectic fever, it will not be expected I should offer much on

the head of medicines ; I shall therefore only observe, that the chief object in this advanced stage of the disease is an attention to the state of the bowels. This will be found to vary frequently ; sometimes calling for restraining, and at others, opening remedies. In a view to the former, SYDENHAM's rhubarb-beer† is a very good medicine. Also purging with mercury, if that has not already been done, should even now be attempted, since children in this state will often bear stronger doses of purging medicines, and more frequently repeated, than under any other circumstances.—Attention, likewise, should be paid to the diet, which ought chiefly to be of milk, rice, semolina, and such like, with light puddings : but above all, children should enjoy plenty of fresh air, and take as much exercise as their degree of debility may admit of.

† Take of choice rhubarb sliced, two drams ; let it be put into a glass bottle, well stopped, with a quart of small-beer, or any other liquor the child may make use of. This medicated beer is to be his ordinary drink. When this quantity is drank, a second, and a third quart of beer may be poured on, as before ; after which the rhubarb will commonly have lost its virtue. Should the beer first poured on be too much impregnated with rhubarb, and purge too much, another pint may be added presently after the first is drank up.

In Dr. ARMSTRONG's second edition, is a pretty long chapter on the hectic fever of teething children, wherein several medicines are prescribed, which the doctor apprehends may be very serviceable early in the disease. He speaks of it as a very common complaint, beginning like other fevers, and gradually becoming remitting; then a slow continual fever, and terminating in a fatal hectic. Dr. BUTTER likewise expresses himself much in the like manner, in an accurate account he has given of a fever that frequently made its appearance, as it should seem, in *Derbyshire*, which he terms the infantile remittent fever; of which further notice will be taken in its place.

It is very probable, that a fever of the description given by Dr. ARMSTRONG may be common among paupers, relieved at dispensaries, and may deserve such a name, but, I believe, it will be rarely met with in higher ranks of life; and if so, perhaps, that ought to have been intimated in a popular work. It seems to me, (and both Dr. BUTTER, and Dr. ARMSTRONG, indeed, say as much) to arise from improper food and nursing, joined with crudities and a costive state of the bowels, and has nothing uncommon in it. When advice is sought for in proper

time, it, accordingly, appears to be nothing more than the fever I have described arising from a foul state of the bowels, aggravated by neglect ; and is easily cured by such medicines as are best calculated to clear the first passages. Should this, however, not be attended to, it may degenerate into a continual fever ; but it is not even then peculiar to the age Dr. ARMSTRONG has specified, nor by any means, the common hectic fever of dentition. At this period, indeed, children call for more exercise, air, and general attention than common people can procure for them ; it is, therefore, not to be wondered at, if neglected and costive, they should at this time fall into slow fevers, whether aggravated or not, by the shooting of their teeth.

REMITTENT-FEVER.

NOTWITHSTANDING what has been observed respecting the remittent-fever as described by Dr. ARMSTRONG and BUTTER, there is certainly a fever of that type that deserves a cursory consideration in respect to a peculiar symptom, which, I believe, always attends it ; though the fever itself certainly arises merely from an affection of the primæ viæ.

Indeed, it is well known to practitioners much conversant with the disorders of children, that various febrile affections, differing in degree, and the time of their continuance, originate from the state of the first-passages; but as the treatment is similar in them all, varying chiefly in regard to the strength, or other circumstance of the purging medicines exhibited, it would be equally unnecessary and perplexing to multiply names, where no essential distinction subsists.

The present chapter therefore is added only to denote a fever of this kind, which constantly remits and increases again, sometimes for three or four weeks, or sometimes much longer, and is attended with the remarkable symptom of picking at various parts of the body until they are made to bleed and even become sore, particularly the fingers, nose, the lips, or the tongue. But this fever being equally remarkable for being always, I believe, void of danger, it is necessary only to remark, that it seldom attacks children under four years of age, nor upwards of ten; and that, although it has been distinguished into the acute, slow, and low infantile-remittent, it requires much less variety of treatment than such distinctions seem to import. The proper, and always successful plan, being confined to the repeated exhibition of some gentle

purgative medicine, or light cordials, when accompanied with much languor, as is not unfrequently the case.

FEBRIS SCARLATINA—WITH *or* WITHOUT
ULCERATION *of the* THROAT.

WHENEVER the Scarlet-fever becomes epidemic among adults, children rarely fail being attacked by it, in great numbers, and frequently sink under it. It is indeed, rather a child's disease, and very contagious among them, but is not often communicated from them to adults. It has engaged the pen of the most able physicians, and is therefore well understood in this day, and needs only on this occasion, to be adverted to as one very incident to children, and its most approved method of treatment briefly pointed out.

The scarlet-fever with ulcerated throat has, perhaps, been distinguished in too refined a manner, by some writers, into the scarlet-fever with malignant ulcerated throat, and the malignant sore throat with efflorescence, or redness, on the skin. But such distinction, it is apprehended, is needless, since the experienced practitioner will always be guided by the degree of tendency in the system either to an inflammatory

or putrid diathesis ; and the less experienced will only be perplexed by multiplied distinctions.

One observation, indeed, may be offered on this head, which is, the propriety of distinguishing the mild scarlet-fever (in which the throat is much inflamed, and slightly affected with superficial and white foulness rather than sloughs,) from the more malignant kind, in which the tonsils are less swelled and florid, and exhibit the precise complaint by some practitioners termed the angina maligna with efflorescence on the skin. An error in this respect, has certainly led less experienced practitioners to administer both bark and wine too early and liberally in the mild scarlet-fever, which has thereby degenerated into a low remittent, bordering on hectic ; and unless the treatment has been changed in a little time, has endangered the life of the patient.

The mildest species of scarlatina anginosa should also be carefully distinguished from the true inflammatory affection of the tonsils, which it will sometimes resemble in its first stages : but the genuine marks of the two diseases, and the cast of the epidemics reigning at the time, will direct the attentive practitioner ; who will in less certain cases, take a middle course in his method of treatment, till the characteristic symptoms of either shall become more evident.

There is, however, a scarlet-fever that is not attended with any affection of the throat, and was long ago described by SYDENHAM,* though not much insisted upon by later writers, which is attended with a harder pulse, and other symptoms of an inflammatory disposition, but nevertheless, in every instance that I have met with, calls for the same general treatment, only more cautiously adapting the necessary cordials and tonics to the degree of fever, especially in the commencement of the complaint.

The febris scarlatina of every species begins with the common symptoms of fever, often with languor and disposition to fainting, sickness, a quick pulse, and pain in the head. The eyes are inflamed, and where the throat is affected, there is frequently a stiffness of the muscles of the neck very early in the disease, which is soon followed by some difficulty in swallowing. The affection of the neck should be carefully inquired into, especially in younger children; the soreness of the throat being sometimes not complained of in the most severe attacks of the disease, until but little prospect remains of any mode of treatment being attended with success. The fever generally increases in the evening,

* See also WITHERING and CULLEN.

and is often accompanied with transient fits of delirium; but some remission takes place towards morning, with sweating; and on the second, or third day the efflorescence appears on the skin, and generally first on the face, neck, and breast.

At this time, the parts tumify, especially the hands and feet; and the patient complains much of pain in the head; is comatose or very restless, and is at times delirious; the tongue is in the beginning very white and dry, afterwards becomes foul, and then of a florid red. About the fifth day, there is usually a remission of fever, and the eruption then beginning to scale off, disappears about the seventh. If the disease has been violent, the patient is about seven days more in a low state; and it is oftentimes a fortnight longer before he recovers his strength and spirits, and in some cases, is distressed with foul abscesses on the outside of the neck.

The limits of this work allow me only to observe that the method of cure being directed to the two indications of the general diathesis, and the affection of the throat, the nature and extent of these must ever be kept in view, and the system be duly supported. Should the body be costive at the time of the attack, an opening medicine should be given previous to the administering of

bark or cordials. The throat should be often gargled or rather syringed, with mucilaginous infusions or decoctions, rendered more or less stimulant; such as the decoct. hord. with mel rosæ, warmed with spir. ammon. comp. tinct. myrrhæ, decoct. rad. serpent, or other such like preparations: though the quality of the gargle is, perhaps, of far less importance, than its being frequently made use of, which is absolutely necessary, especially in young children, in order to keep the mouth tolerably clean; otherwise the difficulty of deglutition will be greatly increased, as well as the morbid mucus be conveyed into the stomach. On this account, also, the patient ought to wash his mouth previously to taking his medicines or drinks.

This fever, especially when epidemic, being almost constantly of a low type, the physician must not trust to saline draughts, or other medicines of that class, without the addition of the conf. aromatica, radix serpent. or the bark, in one form or other. A moderate quantity of wine likewise, according to the age and other circumstances of the patient, should be given with the food, which should consist of whey, caudle, and such like thin and nutritious aliments; with plenty of barley water, or gruel, with a view to promote a moderate perspiration.

Should the affection of the throat, therefore, be evidently inflammatory, or should a case occur where the fever may seem to be of that kind, (which may be better ascertained by the hardness of the pulse than any other symptom) it will very rarely bear bleeding, even in the beginning of the disease; as symptoms of debility generally attend in some period of the scarlet-fever, and will allow only of that middle course of treatment, hinted above.

In a general way, a cordial plan is required throughout the disease, and where the throat is much affected, either with sloughs, or total blackness, the bark is indispensibly necessary howsoever thick and florid the rash, or however hot and dry the skin may be; the bark, in moderate doses, as it were, extinguishing the fever in the milder species, above every other remedy, and in the more malignant it supports the system, till the regular stages of the fever are accomplished, and a perfect crisis is formed. Young children take it very well, especially the soft extract, dissolved in a strong decoction. Should it be disposed to purge the child, a little of the spirit. cinnamomi, or a drop or two of the tinctura opii should be added to it; or if the child, on the other hand, should be two or three days without a stool, a laxative clyster

should be injected. Where delirium attends, a few drops of laudanum are often very serviceable. If there is much external swelling about the neck, blisters to the part are frequently very useful.—Even after the efflorescence has dried off kindly, an appearance resembling the true gangrene has sometimes seized the whole palatum molle, and the fever has been rekindled; but the parts recover their natural appearance after a few days, without any eschar being thrown off. A more unpleasant turn of the complaint at this time, is a secondary fever, which has already been hinted, as being sometimes the consequence of administering bark and wine too early, or too liberally in the milder scarlatina. In such case, upon the disappearance of the rash, the limbs, especially the hands continue swollen, and a general foreness takes place; the patient loses strength, and a tendency to hectic fever supervenes. The bark in this case is no longer useful; but soft demulcent medicines, and light cordials should be administered, with asses milk, and a light nourishing diet; and country air should be had recourse to, if the patient should not soon appear convalescent.

In some foreign parts, particularly *Sweden*, convalescents from this fever are many of them seized with a partial, and some, a more general

anasarca, which often proves fatal. Whether this be the natural course of the disease, or the consequence of improper treatment may be doubted, as their best physicians seem to consider it too much of a kind with the measles, and therefore may direct too cooling a regimen, and medicines.

FEBRIS MILIARIS, *or* MILIARY FEVER.

I Shall be brief on this complaint, which does not seem to be so strictly a disorder of young children as of adults, unless from contagion; though I have seen one or more instances of it, where no other person in the family has been so affected, and without its spreading to any other.

The eruption is preceded by the usual symptoms of fever, together with much itching of the skin, and a very profuse perspiration; which, however, procures no remission of the fever, until the eruption takes place, which is at the latest on the third or fourth day. It very much resembles the measles, but is a little elevated above the skin, giving it a very rough feel. It is sometimes intermixed, from the beginning, with very small crystallines; which on the other hand, often do not appear for a day or two after-

wards, and come out in successive crops, especially, if the child be kept over-hot. Some of the red eruptions are often larger than others, and resemble those in the scarlet fever, with which the miliary rash is also sometimes thought to be mixed, in seasons when eruptive complaints are very rife.

Previous to the eruption, as well as sometime afterwards, the patient is usually very thirsty, is hot and cold, by fits, and the breathing is short and difficult. The urine is high-coloured, there is a slight delirium, and sometimes a sore throat, especially where the eruption is broad and very florid.

Children generally revive as the rash comes out freely; but unless the complaint be very slight, the fever is rekindled, and they acquire no appetite for food until the eruption begins to turn dry.

This fever being of the low kind, is attended with great languor, and calls for support; on which account both the medicines and diet should be of the cordial kind. White-wine whey, and wine in the panada and sago, in proportion to the degree of debility, are generally necessary even for children of only a year or two old. The saline draught with confection. aromatica, and *mustura camphorata* is a good general

medicine; and if the symptoms are more aggravated, the bark, volatile alkali, and the spir. æther, vitriol. compositus: blisters also are often very useful. A stool should be procured once in two days by means of a clyster, or a little rhubarb; and plenty of drink be allowed, which may be lightly acidulated, and at times taken cool. The chamber should be kept airy, but the child screened from the wind, and be confined to the bed, until the rash disappears.

If on the rash drying away, which in the milder species, is in three or four days, no fresh eruption should take place, the appetite and spirits soon return; and only a little rhubarb, or other gentle laxative is required, with the usual cautions in regard to diet, so necessary for every convalescent, and especially children, who have no discretion of their own. But if fresh crops appear, and the fever returns, the former plan must be continued; but if without fever, a few doses of physic, and quitting the warm bed will, probably, put an end to the complaint.

CYNANCHE PAROTIDEA, or MUMPS.

THIS is a tumour of the neck and throat, giving that peculiar cast of countenance from which the complaint has acquired the English

name. It is usually only a slight disorder in children, but as it advances, the skin becomes inflamed, putting on a light damask-rose colour; but the parts very rarely suppurate, which is the more remarkable, as the disorder seems to be seated in the cellular or adipose membrane. This, however, does sometimes happen, but the abscess always heals kindly.

It is a complaint rather of young people than of infants; but frequently attacks children of five or six years of age. It is certainly contagious, and is often an epidemic disease. It begins with the common symptoms of fever, which are usually slight, but the tongue is frequently covered with thick fur, or is very white. The patient complains early of a stiffness and pain of the neck, and generally the next day of a soreness of the throat; but this seems oftentimes to be merely symptomatic, the tonsils being rarely inflamed. At this time, a fulness of the neck may be discovered, which gradually extends to the throat, and the parts become tender to the touch, and in some instances, the pain is exceedingly great, and recurs suddenly with almost regular intervals. The tumour generally continues to increase for two or three days, and then as gradually subsides.

In general, very little medical treatment is required, it being sufficient to confine the patient to the house; at most, to give night and morning a few grains of the pulv. contrayervæ comp. with, or without, a small proportion of nitre, and to procure a stool once in twenty-four hours. But should an unusual degree of fever attend, as is more common in such as are advancing towards puberty, bleeding will be found necessary in the beginning, and the patient should be kept in bed for the first or second day, and take a saline draught with nitre, once in six or eight hours. On the other hand, should it be attended with any uncommon languor, the conf. aromatica may be given instead of the remedies before mentioned. When the swelling is thoroughly subsided, two or three gentle laxatives may be administered at convenient intervals.

In a few instances, after suppuration has taken place, and the sores are healed up, a hardness of the parotid and maxillary glands remains, which is usually soon dispersed by rubbing in a little mercurial ointment, or sometimes by only anointing with the common linimentum ammoniæ. Should it, however, prove tedious, a few doses of calomel, and common laxatives should be exhibited, at proper intervals.

In adult males, or such as are growing up to manhood, the tumour of the neck has sometimes been found to subside very suddenly without any abatement of the fever, and then the testicles have been as suddenly inflamed; which is attended with more pain and fever than the swelling of the neck, and is cured more slowly: upon this metastasis bleeding is always proper, though these parts have never been found to suppurate.*

A translation from this part again, is sometimes very suddenly effected, and the irritation then generally falls upon the brain; and the worst consequences are justly to be apprehended. Every thing necessary and proper for the true phrenitis is then speedily to be had recourse to, and the tumefaction invited to the parts it has left; and until that can be effected the patient will be in great danger. Such a metastasis is much more common in *North America* than it is amongst us.

HYDROCEPHALUS.

THIS complaint is distinguished into the *external*, and *internal*; in the former, the water lies

* A swelling of the testicles attended with pyrexia, but unaccompanied with any affection of the glands of the face or throat, was epidemic not long since at *Wallingford*, in *Berkshire*, as reported by Mr. GOLDING.

upon the surface of the brain, over the pia mater, but in the latter it is seated much deeper, within the ventricles. The *external* makes its appearance at, or it is said, in some instances, soon after birth; though it is certain, that children with hydrocephalus externus are more commonly still-born. I have, nevertheless, known three arrive to full ten years of age,* who were then unable to walk, or even to sit upright in a chair. From a late instance, however, I have learned, that when no symptoms of hydrocephalus appear at the birth, although the enlargement should be manifest very soon afterwards, and increase rapidly, the water is *sometimes*, at least, contained within the ventricles of the brain:† and from the circumstance of no children living long with an

* See *Medical Communications*, vol. 1, in which there is mention of two people then living, one of whom had attained the age of 29, and the other, 45 years: the former did not appear to have any enlargement of the head for three weeks after birth.

† In the *Medical Journal*, vol. 2. p. 1, an instance is related by Mr. E. FORD, of a child seized with symptoms of water in the head, at the age of nine years, who lived eleven months afterwards; during the last eight of which he was unable to stand upon his feet. After death, the futures were found to be separated to a considerable degree, the ventricles containing eleven ounces of water, but there was no water exterior to the brain.

internal hydrocephalus, but such whose heads enlarge within a few months after birth, I should suspect the disorder has, in such instances, taken place in the womb. The fetus, at this time, enjoying only a kind of vegetative life, may come to maturity under such a disease; various instances being met with, in which full grown fetuses have had neither head, nor heart, nor lungs. Accustomed to the above mentioned disease, we may presume such infants more likely to live for a certain time with water in the ventricles, than those in whom the disease is supposed to take place, suddenly, after birth.

In the instance alluded to, the child's head began to be sensibly enlarged when the infant was about four months old, and the child lived to the fifth year, unable to walk, or even to support its head. Upon a careful examination of the parts after death, the water, to the quantity of three pints, as I am informed by the surgeon, was evidently contained within the ventricles, which were so stretched as to compress the brain in such a manner, that it appeared only like a smooth thick membrane within the dura mater; and of all the solid contents of the skull, scarce any thing, but the cerebellum remained. TULPIUS, HILDANUS, VESALIUS and MORTGAGNI have noticed the like in children from

two to five years of age ; and it must therefore be still more likely to happen where the hydrocephalus internus has taken place in the fetus in utero, when the brain is much more tender. Dr. WHYTT of *Dublin* likewise, mentions no less than three instances of the same kind, in which the brain was so compressed by the great quantity of water within the ventricles, as to put on the appearance of only a small gland.

The *external hydrocephalus*, at whatever period it may commence, has always been esteemed a fatal, as well as most distressing complaint ; but I have been informed, that where the disorder has not been very manifest at the birth, blisters on the head have sensibly diminished the bulk. These should be applied, successively, to different parts, especially along the top of the head, in the course of the longitudinal sinus, so as to keep up a constant discharge ; which from the good effects in two or three cases, when had recourse to in good time, may possibly, in some instances, effect a perfect cure : at least, the advantages already observed are sufficient to justify the attempt, in a disorder hitherto esteemed incurable.

Of the *internal watery-head* it may be proper to treat more largely. This melancholy disorder seems not to have been distinctly known to the ancients, though there can be little doubt, it

must often have been met with ; but the want of those frequent examinations of dead bodies which the moderns have made, deprived them of those opportunities of distinguishing this disease from affections of the head arising from other causes. **HIERONYMUS MERCURIALIS**,* who wrote in the beginning of the sixteenth century, was perhaps the first who mentions the disease as having its seat in the ventricles. **WEPFER** also just says, that water has been found in the cavities of the brain.† **BOERHAAVE**, **PETIT**, and others have likewise spoken of it ; but no author, I believe, described it at all accurately before **Dr. WHITT**, who wrote expressly on the internal watery-head, anno 1768. But it has not been generally noticed, that the water lies sometimes between the pia-mater and the brain, as it is found to do in maniacs ; and I have met with it both there and in the ventricles, in the same subject, and always in infants under two years old.

The Hydrocephalus, indeed, is said usually to take place between two, and ten years of age ; but I have known so many instances of water in the head being found after death, in children under two years of age, that this account of it,

* *Opuscula aurea, Lib. de Morbis Puerorum.*

† *Histor. Apoplecticorum.*

probably, is not very accurate. I have noticed this early appearance twice in the same family; the infants also dying suddenly without any previous mark of the disease: but as no dangerous symptoms of any other kind attended, it can scarcely be doubted, that the water found in the ventricles was in these instances the true cause of the sudden death; as I am satisfied it hath sometimes been in others, by producing a fit. This complaint, however, at whatever early period it may commence, is also found sometimes to take place later than the tenth year. It is a like dangerous complaint with the hydrocephalus externus, and the method of treatment, not yet well established; and as it can scarcely be ascertained whether any have recovered from it, (the certainty of its existence rarely being known but by examination after death) it is not likely that a very determined, and successful treatment will shortly be settled.

It may arise from falls and blows on the head, from scirrhus tumours and excrescences within the skull; a watery state of the blood, or a lingering illness. It may likewise, probably, be owing to pressure on the brain and fulness of the vascular system from other causes, as conceived by Dr. QUIN. I have, at least, met with one case, in which there were all the usual symptoms

of water in the ventricles, and the late Dr. WARREN whom I met on the occasion, was fully of that opinion. But upon examining the head thirty-six hours after death, a great number of sharp points of bone were found, and especially of the spinal process of the os frontis, which was most uncommonly long and sharp. The vessels were all found very turgid with blood, and there were light, flakey appearances on the pia mater, similar to those found on the peritonæum, pleura, and other membranous parts in a state of inflammation. In this case, only half an ounce of water was found in the ventricles. A similar remark is made by Mr. EDWARD FORD,* who observes, that more remote causes may be an inflammation of the vessels of the pia mater, which may owe its origin to the measles, small-pox, scrofula and other complaints; which may affect the brain in the same manner they do the mesenteric and other glands. As the disease may originate from such different causes, there can be no doubt that it may sometimes be a chronic disease, and its appearances very insidious. It appears, likewise, to be a family complaint in some instances; for I have known six children, born of the same

* *London Medical Journal*, Vol. 2, part 1.

parents, die successively of it at the age of two years, five of whom were afterwards opened.—Children with a large head do not seem to be more subject to this disease than other children.

The attack is sometimes very sudden; but the complaint more commonly begins with the appearances of slow fever, especially in older children, with debility of the arms, and pains in the limbs; and frequently in the upper part of the neck. After a while, the child is suddenly seized with pain in the head, and generally in the fore part, and retches once or more: it becomes heavy and dull; can bear no posture but that of lying horizontally; the pulse becomes irregular, but usually very slow: in the progress of the disease the faculties and senses are impaired, and the eyes are offended by the light; the patient sees objects double, and becomes delirious. As the disease advances, the pulse grows frequent, the cheeks become flushed, the pupils of the eyes are dilated, the stools and urine come away involuntarily, and the patient lies sleeping, or is convulsed.

In the youngest subjects, I have known it begin with a cough, quick pulse, and difficulty of breathing, attended with circumscribed flushed cheeks as in teething, recurring on every little exertion, with continual fever and costiveness;

and sometimes a discharge from the nose and eyes. Other symptoms indicative of the disease in very young subjects, are, a hand often put to the head, or lifted upwards, and waving about; vomitings; costiveness; expression of anxiety, and dislike to be moved; at other times, an unmeaning look, and marks of insensibility; the fingers often clenched, and hands tumid; drowsiness; picking of the nose, and grinding of the teeth during sleep, as in the case of worms: the eyes are in some cases impatient of light, in others, vision is so imperfect that the child does not regard any objects however close to them; and before this period, one or both the eyes are in many instances turned towards the nose. The pupils are often not dilated till near the close of the disease, and such young patients sometimes hear and comprehend, and take food to the last, and die suddenly upon the decline of the febrile symptoms, when they have been thought to be recovering. These and other symptoms, however, laid down as indications of water in the brain, are, in some degree, common to other diseases of children, especially the dilatation of the pupil and sleepiness, in fevers arising from foul bowels, as will be noticed below; which, I am persuaded, are sometimes mistaken for the fever of hydrocephalus. In such cases, some

children have been erroneously thought to have recovered from this disease, especially if calomel has been administered, though with another view, while others have perished from improper treatment, and mistaking their complaint. Perhaps, the most decided symptoms early in the disease (at which time it is of the most importance to ascertain it) are, an inclination to lie on the back, and unwillingness to be moved, and an increase of pain in the head upon being raised from a supine to an erect posture: but especially an almost constant drowsiness, and a tendency to fall asleep, after being roused by being lifted up, or otherwise disturbed. Sometimes, however, neither these, nor other decided symptoms are found to take place until the second stage of the disease.

Though it is sometimes a very short disease, and at others, of many months standing, it seems always to be divided into three stages;* which are best distinguished by the state of the pulse. In the first, the pulse is always quick as in other complaints attended with fever; in the second, it is slow, irregular, and often intermitting; and in the third it becomes again very quick, and usually regular. The urine frequently deposits

* See a Treatise on this disease by Dr. CHARLES WILLIAM QUIN. *Anno* 1790.

a sediment of a light consistence, and white colour; and the breath has an offensive and sickly smell, especially in the last stage.

From what has been advanced, it is difficult to say if medicines are so often successful as hath sometimes been imagined; for when a patient recovers, it has been said, it may be suspected he has not had the true disease. I offer this suspicion as well from my own experience, as from the doubts entertained by other writers; having sometimes been persuaded, (and supported in that opinion in consultations) that infants have been ill of water in the head, who have afterwards recovered from the use of medicines adapted to fever from a foul state of the bowels. Two such children, besides the dilated pupil and other usual symptoms of hydrocephalus, lost the use of their speech, (and one of them, of the sight) for several days; but recovered after a daily discharge of very uncommon stools, resembling the meconium of infants. And it is very remarkable, that only calomel brought these away; the experiment being repeatedly made by omitting it, and giving only the infusion of fenna; but upon the calomel being exhibited again, the same stools were always observed, as black and adhesive as meconium,*

* Stools of this colour take place in the month, long after

and in very great quantity, until the children perfectly recovered.

Whatever may have been supposed to be the immediate cause of hydrocephalus, practitioners seem chiefly to have depended on repeated bleedings; purges with jalap, or calomel; blisters to the neck, or head, diuretic medicines, and the external use of mercurial ointment. A large bleeding early in the disease I have thought very beneficial, especially in children of a robust habit. The use of sternutatories, as the compound powder of asarum, or white hellebore, have likewise been recommended by some experienced practitioners: and possibly, with some little prospect of advantage, some children having recovered in consequence of a discharge of a thin fluid by the nostrils, as Dr. HARVEY acquainted me he had seen in two instances. With a view to promoting absorption, electricity has likewise been recommended: to all which I would add the application of a narrow caustic upon the head, along the whole course of the longitudinal sinus, instead of trusting to a small blister on the crown.

the meconium seems to have been duly carried off, when infants are very dangerously ill; though it is at other times a very harmless symptom, as will be noticed in vol. iii. where notice is taken of suckling, and fore-nipples.

Though I have made mention of mercury, I cannot say I have seen any decidedly good effects from its use, either as a purge or an alterative (after the disease has been clearly ascertained;) administered either externally or internally, though I have had recourse to it very early as well as late in the disease. Should the use of it, however, be determined upon; in which ever way it may be advised, it should be assisted by diuretics. Calomel is probably the fittest preparation for internal use; though the quicksilver, together with diuretics, has been thought to be administered with success in the following form, to infants of two or three years of age.

R. Confect. Aromat. ʒj.

Hydrargyr. purif. ʒj.

Simul terantur donec globuli visum fugerint.

R. Massæ suprapræscriptæ ʒ ʒ.

Pulver. Scillæ gr. ʒ.

Aquæ Menth. sativæ ʒ ʒ.

Spir. Æther. nitrosi gtts. x.

Misce,

Fiat haustus, bis terve in die sumendus.

The external application of mercury has however, been more generally preferred, as acting more powerfully on the system, and creating less disorder in the bowels. Some physicians have directed it to be used both externally and

internally; and it may so be made use of very freely, as a salivation is not very easily raised in young children, especially in this disease.

Though I have said that I cannot boast of success in the recourse I have had to mercury, it is proper, however, to observe, that it has been strongly recommended by Drs. CARMICHAEL SMYTH, DOBSON, JOHN HUNTER, HAYGARTH, MOSELY, and Dr. ARMSTRONG; but I am informed by other physicians of eminence, that they have not been so successful in the use of it; and some good arguments have lately been advanced against an indiscriminate recourse to it, by Dr. JOHN WARREN; who advises trial to be made of emetics.

The digitalis purpurea has lately succeeded in one instance, and that a most unpromising one; the patient a youth about fourteen years of age, having been some time greatly convulsed, and able to swallow only with great difficulty. This medicine was given in a strong tincture, half an ounce of the dried-leaf being infused in two ounces of brandy, of which from five to twenty drops were taken once in five hours. It acted, as usual, very powerfully as a diuretic, but without producing any unfavourable symptoms, and though it was long ago given unsuccessfully in some instances, by the late Dr.

FOTHERGILL, may be worthy of further trial ; but should generally be joined with aromatics.

As I am always happy in the opportunity of reflecting any light upon obscure diseases, I shall close these means of cure with some observations from Drs. PERCIVAL* and TEMPLE, as well as from Dr. RUSH, and since confirmed by Dr. PATERSON ; but not having had experience of their efficacy, I offer them only as the sentiments of the several writers.

The latter is decidedly of opinion, that the commencement of this disease is always truly inflammatory, being what he calls a phrenicula, or diminutive species of phrenitis, and that it should be treated boldly as an acute disease : the aqueous effusion, he is persuaded, being the mere effect of inflammation : the tender structure of the brain, during infancy very probably rendering that viscus more liable to such a consequence than it is at a more advanced age.

Dr. RUSH speaks of great success in treating the complaint agreeably to this idea, and advises ;

1st. Bleeding, which in some cases he directs to be repeated several times in the first stage of the disease.

The second remedy in this stage is, purging, plentifully and repeatedly ; to which he was first

* See *Medical Facts*, vol. 1.

encouraged from the benefit derived from that remedy in palsies, and other cases of congestion in the brain.

3d. Blisters to the head, neck and temples, for the relief of the pain in the head; which are, therefore, proper in any stage of the disorder.

4th. With the like view, linen cloths, dipped in cold vinegar, or ice-water, and applied to the forehead.

5th. Mercury, particularly calomel, as a purge, in any stage; but mercury in larger quantities, as a stimulant, as soon as may be after the inflammatory action of the system is sufficiently subdued by previous evacuations, or otherwise. Bark, wine and opium, he says, promise success only in the last stage of the disorder, assisted by mercury, where the state of the system may call for them.

If we may place much confidence in these observations of Dr. RUSH, whose theory appears to be supported by plausible reasoning and the history of several successful cases, some further light seems to be thrown upon this dangerous disease; and the indications for the antiphlogistic plan, particularly bleeding, and the proper use of mercury, pointed out with somewhat more precision than hitherto.

The chief doubt remaining, is, that his pa-

tients may have recovered from some very different complaint, particularly fever from foul bowels; in which it has been said, both the head and eyes are often greatly affected. And this may be the more apprehended, from many of those who die of hydrocephalus being very tender, and previously sickly children, who can neither endure much evacuation of blood, nor much purging; and in whom, indeed, there are no symptoms of congestion either of solid feces, bile or other alvine stimulant.

The intentions of cure as laid down by Dr. PERCIVAL are very similar to the foregoing, being calculated, he says,

To mitigate the pain and spasm;
To promote absorption; and
To increase the serous excretions.

When the pain and spasms are considerable, he advises opiates in large and repeated doses, unless there be coma, and in that case, he substitutes musk combined with sal cornu cervi. He directs repeated blisters to the head, and recommends joining the digitalis with opium and calomel; though he is inclined to think, that the good effects produced by this composition are rather attributable to the combination of the opium and calomel, than to the digitalis. If

the mercury be disposed to run off by the intestines, he guards it further by opium.

Dr. TEMPLE* having observed, that the doronicum germanicum administered in some paralytic affections was disposed to excite the cuticular vessels in the head, in a very extraordinary manner, producing a copious sweating of the part, was led to advise it in hydrocephalus internus; and in a recent instance with marked success, in consequence of an abundant perspiration from the head. Opium and calomel were, indeed, joined with it, but as it is not known, he says, that such effects have been produced from the combination of mercury and opium, he concludes, that the doronicum had a considerable share in them.†

As a prophylactic, or preventive, where several children in a family may have suffered by it, some writers have advised a caustic to be applied to the nape of the neck. And other physicians have thought, that the progress of the disease has been stopped, after threatening symptoms had taken place, by covering the whole crown of the head by a blister, and keeping the

* See his *Practice of Physic*.

† It hence appears, that Dr. TEMPLE had not seen Dr. PERCIVAL's remarks on this disease—How very differently do men oftentimes argue from the same fact!

fore open for a year or more ; of the good effects of which, I have seen one instance, in a family where the complaint had been three times fatal.*

GENERAL OBSERVATIONS *on the* SMALL-POX
and MEASLES, *with* CURSORY REMARKS
on INOCULATION.

IT will scarcely be expected, that I should treat distinctly of these diseases in their several varieties, being in no respect peculiar to childhood, nor of a nature to demand a full investigation in a work of this kind ; and are noticed only to point out a few principal indications, and to introduce some practical observations in regard to Inoculation.

Though the SMALL-POX is a complaint so in-

* It may be worth noticing in this place the manner of making a perpetual blister, or what is called a perpetual issue, at *Edinburgh* ; which is, by applying a plaster, consisting of equal parts of eplastrum vesicat. and cereum. This it is said, does not erase the cuticle, or erode the parts under it, but leaves them entire, and lets the hair grow up. As these, in ten or twelve days, push off the plaster, it is necessary to leave off the plaster, and as soon as the skin can bear the razor, to take off the hair, and apply a fresh plaster. This gives less pain, is free from the inconvenience usually attending the blistering plaster, where the cantharides is absorbed, and gets into the blood, whereby a strangury is brought on.

cident to the early part of life, that comparatively few children living to the age of eight or ten years are found to escape it, yet it is not so readily communicated, in the state of *early infancy*, as hath been generally imagined, unless by immediate infection.* This is equally true

* Some evidence of the propriety of this assertion may be gathered from the consideration of there always existing a far greater number of infants within the month, than of children of any other age; and for the like reason, a greater number of those under a year old, than of such as are two or three years of age. For it is evident, that every infant dying at the earlier periods, must reduce the number to which those of the more advanced ages might otherwise have amounted; whereas, all the children who arrive to two or three years of age, having been first infants in the month, and of one year old, the number of the latter periods is not diminished by the death of those of a more advanced age. Now, every one knows how very few infants he has heard of who have received the small-pox, naturally, in the month, or even within the year; though fewer of these are inoculated than of children above a year old. And this exemption from the natural small-pox does not seem to arise from their not being exposed to the ordinary means of contagion, especially among the middling and lower ranks of people, who form the bulk of mankind; since the medical men who usually attend such lying-in rooms, are very much in the habit both of visiting patients in the small-pox, and of inoculating, all the year round: and even in the higher ranks of life, if gentlemen in the general practice of physic happen to be consulted, the chance of their visiting at the same time infected patients, is not so small as may be imagined; not to speak of the proba-

in regard to many other diseases, as I have noticed elsewhere, and the principle may very probably be, as conceived by Mr. KITE, that the younger and weaker the subject is, the less of life it possesses, and the less susceptibility it has for these complaints.

The poor furnish frequent instances of the truth of this observation. I have attended where children born in an air, saturated as it were, with the miasma of this disease, (as well as of the measles) and even lying continually in a cradle in which another child has died a few days before, have, nevertheless, escaped the disease, and sometimes, when they have slept together in the same bed with one loaded with it. Hence it appears, that highly tainted air, and even personal contact, are often insufficient to communicate the virus. Yet we know that infants are very easily infected, receiving the small-pox by inoculation as readily as adults; though neither are at all times equally susceptible of it.*

bility there is, that some one of the numerous visitors, during the month, may by accident or otherwise, have been in some infected house in the course of the day in which their visits may be made.

* Dr. YOUNG inoculated several children at the Royal Infirmary at *Edinburgh* at about a week old; yet in none of them could he perceive the infection to take place. And a

Perhaps this latter circumstance may not always be sufficiently attended to ; the mode of inoculation being often blamed, when its failure may be owing to the indisposed habit of the child. Possibly, on this account, it may not be perfectly safe to urge it, at such a time ; at least, instances are not wanting, where twice introducing the virus having failed, an infant has had the disease very severely, and even fatally, upon its being repeated a third time.—In no other view, I imagine, can the repetition be accounted hazardous ; and this holds out encouragement to such as from any uncertainty in regard to infection, may wish to be inoculated once or more ; Dr. RICHARD DE HAUTEFIERCY* having inoculated a young person every fortnight, for a whole year. The first of these operations communicated the disease, and the subsequent ones in no wise injured his health.

But in whatever way the small-pox or measles may take place, they are to be treated as in

respectable physician lately informed me, that he knew a young woman to be inoculated eight times in the course of thirty days, who also at the same time attended several children who had the small-pox from inoculation, and yet was not infected herself. She, nevertheless, caught that distemper about seven weeks afterwards, and died of a confluent sort.

* *Nic. Rosen-von Rosenstein.*

adults, with but little other difference than what every practitioner is well acquainted with, that of greater caution and tenderness; as infants cannot bear the powerful antiphlogistic regimen and evacuations, often proper for the other.*

In regard to the disease itself, it may just be observed, that in the mild distinct small-pox the eruption does not appear till the fourth day, inclusive from the attack; but in the severe, confluent kind, on the third, and even sometimes early on the second day. In the former also, the fever and other complaints usually vanish upon the eruption appearing on the skin, whereas in the confluent, however, it may abate for a short time, the fever is rekindled, and increases with the progress of the disease. There are likewise some peculiarities in regard to young children, both in the mode of attack, and in the symptoms attending the latter stage of the disease, which may be slightly noticed in this place. The vomiting, shivering, and pain in the back, and head, being rarely succeeded by a sweat in infants, and is far less common in all young children than adults, under any of their complaints, and is less commonly salutary, or critical. In the progress of the disease there is like-

* *Ex toto, non sic pueri, ut viri, curari, debent. CÆL-
SUS. Lib. iii. cap. 7. p. 134.*

wife as frequent a difference, children having usually a purging in the bad confluent sort, in the place of that salivation which usually appears in adults. These circumstances, as well as their tender age, will call for some little diversity in the treatment; with all which, however, the reader is supposed to be acquainted, who will be careful to make proper discriminations in this complex disease.

In regard to the MEASLES it needs only to be remarked, that not only ought the belly to be kept open throughout the disease, and cooling medicines, and diluting drinks be administered; but unless the children be very young, they will bear and even require one or more bleedings, at any period of it when the symptoms indicate its propriety.* And, indeed, the cure of the fe-

* In all cases of local inflammation, or tendency to it, topical bleedings should have the preference, especially if it be not necessary to take away a large quantity of blood, (which it can rarely be in young children;) or if the operation be often repeated. In the present instance, therefore, if the child be very young, or very weak, it may be sufficient to draw off a little blood by leeches, from some part about the chest. But should it be designed only to lessen the quantity of the blood, they may be more conveniently applied to the leg, or arm, as the child will be less exposed to taking cold during their application; and if the leeches should not draw well, those parts can afterwards be com-

condary fever, and cough, however long they may continue, will turn upon repeated bleedings, laxatives, and a total abstinence from wine, and all animal food.—It may be just remarked, that instances occur even in the benign measles, of the eruption continuing much longer than four days before it begins to dry off.

I have now only to drop a word or two more on the subject of *Inoculation*, and principally, because parents are very apt to fall into great mistakes respecting the age, and circumstances most proper for this operation, and sometimes draw medical people into an imprudent compliance.

It is too common an opinion that a very young infant, sucking at the breast, is the fittest subject for inoculation. Children are then said to be clear from humours, their blood mild and balsamic, their food innocent, and their minds free from all violent passions. But all these advantages may be counterbalanced by the delicacy of their frame, their disposition to spasm, and their inability to struggle with a severe attack of the disease, if it should chance to fall to their share. And such, indeed, are the facts :

modiously immersed in warm water to promote the bleeding; or a bandage may be easily applied to restrain it, if it should prove too profuse.

infants usually have the small-pox very lightly, whether taken naturally, or from inoculation, though in both there are a few instances of their expiring in a fit at the time of the eruption; and they seldom get through the disease, if they are full, or it proves of the confluent, or malignant kind. And this furnishes a peculiar objection to inoculating infants at the breast, which arises from their necessarily lying so much on the arm of the suckling mother, or nurse, especially in the night; the heat exposing them to a much more copious eruption, than children who are weaned. This I have seen clearly exemplified in the instance of a child whose mother could suckle only with the right breast; the consequence was, that the left side of the child was perfectly loaded with the eruption, (though the pock was of the distinct kind) whilst the other had only a moderate sprinkling. The child, however, sunk under the secondary fever at the end of five or six weeks, though turned of two years old; the *only* child I have known to die of inoculation at so advanced an age. A similar instance is related by Mr. Moss; who not being able to prevail on a young woman whom he had inoculated, to keep her feet (which were very cold) out of the warm ashes of a hearth-fire, at the time of the eruption, they were, in conse-

quence, so loaded with it, as to appear one continued blister; though the disease was very distinct, and went on favourably in other parts.

I am aware that many children are inoculated very young, and even in the month, and generally with very good success; but the frequency of this practice, among eminent surgeons, is owing to the urgent solicitation of parents, and their fear of contagion. I cannot therefore avoid saying, that however few may die under inoculation, under any circumstances, the fact is, that the far greater proportion that I happen to have had an account of, is amongst infants under six months old. A remarkable proof of this disproportion appeared a few years ago under a general inoculation at *Luton*, during the progress of a malignant small-pox; which had carried off one half of those who were attacked by it in the natural way. In the midst of this fatality, twelve hundred and fifteen paupers were inoculated, through the humanity of the present Bishop of *St. David's*,* many of whom refused all preparatory medicines, and were besides addicted to the use of strong liquors: nevertheless, out of the *twelve hundred and fifteen*, only *five* died—all of whom were infants under four months

* See a Tract on *Malignant Fevers*, by the late SIR WILLIAM FORDYCE, 1790.

old.—Seven hundred adult people of better condition, in the same neighbourhood, were inoculated a short time afterwards, and with the like good success with the former.

From this view of the matter, it is pretty evident, I think, that this operation ought, in general, to be postponed to a later period, which is pointed out by the child having cut all its first teeth. To which may be added the observation just made, that infants are not much disposed to take the small-pox naturally; and that more than fifty children die under the age of two years, of other complaints, to one that dies of the natural small-pox. Should it, however, be in the same house, or prevail in the neighbourhood, and the parents find it difficult to remove the child out of the way, it may run a less risk in being immediately inoculated, as that operation is now so well understood, and successfully conducted, than by taking the chance of escaping the infection, or of recovering from the disease, if it should happen to take place. I shall just observe, however, on this head, that the late PROFESSOR MONRO, seems to recommend the use of a bath of water and juniper-berries, and fumigating the chamber with the juniper-tree, during the course of severe small-pox; which is said to have succeeded in eight or nine instances as a preventive.

The inoculation of pregnant-women being, in certain instances, dangerous to the infant, it is presumed, that it cannot be totally foreign from the subject, to annex a caution on that head; it having until of late been generally imagined, that the child is not infected by the parent passing through the small-pox, whether from inoculation, or otherwise. It is, indeed, comparatively rare, that the unborn fetus takes the disease, howsoever severely the mother may suffer by it; yet from a very accurate account of this matter lately published by Dr. PEARSON, and some cases by Messrs. C. KITE of *Gravesend*, and W. TURNBULL, the fact is established as the result of much experience and reflection, where the parent has been infected after the sixth month of gestation. Previous to that period, however, the fetus (whatever be the cause) has very seldom been known to take the disease; and later than that, it is presumed, few mothers would be inclined to submit to the operation, unless from some urgent necessity. The parent, it is added, is not in much additional danger from being inoculated in a state of pregnancy, unless the disease should prove considerably more severe than it is ever expected, from inoculation; but when communicated to the fetus, the infant always dies. An instance of

infection at an early period of gestation, has lately been adduced by Mr. RUMBALL of *Abingdon*; the fetus taking the infection when its mother had only completed the fourth month of gestation. She was then seized with the natural small-pox of a bad confluent kind, and recovering with difficulty, was delivered, at the end of the seventh month, of an infant who bore strong marks of the disease, and survived only half an hour.

In regard to inoculation of the *Measles*, it may just be noticed, that Dr. FRANCIS HOME is said to have practised it, in several instances, with success, and that Dr. ROSENSTEIN seems to intimate the example having been followed in *Sweden*.*

VARICELLA, or CHICKEN-POX.

THOUGH this disease is, indeed, usually a very light one, it merits a few words, not only because more incident, perhaps, to children than to adults, but also that it is sometimes mistaken for the mild small-pox; which it sometimes exceeds in violence, and is now and then even attended with danger. This is, indeed, so uncommon, that the disease has been very seldom noticed by medical writers; and even Dr. HE-

* *Treatise on the Diseases of Children.* 1771.

BERDEN, who was among the first that obliged the public with a distinct account of it, says he never saw any person with so many as three hundred pustules over the whole body. Physicians, indeed, as he observes, are not often called to visit patients under a complaint usually so trifling, or a gentleman of his long and extensive practice, would have met with instances in which it must have appeared of more consequence, as will presently be noticed.

It is from this disparity, I apprehend, that this disorder is sometimes denominated the swine-pox, which is only a ranker species of the disease, in which the symptoms may run higher, as well as the pustules become much larger, and more purulent. In this case, I have known the head and face as much swollen as I have ever seen them in any distinct small-pox, however full, and the pustules containing a yellow matter, with highly inflamed bases, and exceedingly sore; and these have formed a complete mask on the face, after the turn, as is often seen in the small-pox. One such patient whom I was called to visit, was about sixteen years of age, of a plethoric habit, but very healthy; and what makes it very certain, that this complaint could not be the small-pox, is, that the young gentleman died of that disorder a twelvemonth afterwards, and possibly

owing to its being neglected in the beginning, from an idea that the former illness had really been the small-pox. The latter mistake arose from an improper answer having been then made to my inquiry after the day on which the eruption had first appeared, (as I was called to make him only one visit, when the pock was on the turn;) a mistake the young gentleman's mother had a perfect recollection of after I was gone, and of which I reminded her upon being called to visit her son in the small-pox, only the day before his death.

This case strongly verifies the remark of Dr. HEBERDEN, that this complaint can, in some instances, be distinguished from the small-pox only by its quicker progress towards maturation, and the shorter duration of the pustules; a watery vesicle always appearing on the second or third day from the eruption, and the turn, at the furthest, taking place on the fifth. In young children, a teasing cough sometimes comes on about the time that the eruption is complete, and continues until two or three doses of physic have been taken, which on account of the cough seems to be necessary.

The symptoms preceding the eruption are sometimes so slight, that even where the eruption has proved pretty considerable, the disorder

has not been expected so soon ; though from its being in the family, the closest attention has been paid to it.

The Treatment of it differs nothing from that of the mild, distinct small-pox ; but it more rarely calls for much attention, and only when a patient may have it very full ; or, as sometimes happens, a second crop appears, after the first has dried off.

AGUE.

THIS is a complaint so well known, that it seems unnecessary here to enter minutely into a description of it. It is sufficient to say, that it consists of repeated cold and hot fits regularly succeeding each other, with one or more well-days between them ; in which interval the sick passes a high-coloured urine, that deposits a red sediment.

It, perhaps, partakes more of a nervous affection than other fevers may do, and is known to be endemic in some flat marshy situations, but is most frequent in the spring and fall of the year ; in the former of which it is generally easily cured, and is even sometimes salutary. Autumnal agues, on the other hand, especially in the country, and amongst very poor people who feed coarsely,

will frequently continue a long time, and return again the next autumn; whereby the constitution becomes considerably impaired. In such instances the legs are apt to swell, and more especially the belly, which becomes hard, particularly on the left side, and has been termed the ague-cake. This tumefaction, however, instead of being a bad sign, as might be suspected a priori, is a very favourable one, and indicates the recovery of the patient. This circumstance is noticed by SYDENHAM, and like other observations of that attentive practitioner, is a very just one, and was, doubtless the result of his experience. The hardness is probably owing to an infarction of the spleen, and usually subsides in the course of a few months, especially upon the use of moderate exercise, and a generous diet. It may be prudent, however, to administer small doses of calomel, and afterwards light bitters, adding likewise chalybeates, if the habit of the patient seems to require them, and there are no symptoms of a morbid affection of the viscera.

It were needless to enter largely into the subject, and it is equally foreign from the present intention, to be more particular in regard to the cure of this oftentimes very troublesome complaint. Some notice of it, however, is taken, because though no more peculiar to children

than the last mentioned diseases, yet it may be said, that there are comparatively very few children who have not suffered by it during the years usually passed at school.

The ague, indeed, attacks every age, so that infants even under a year old are very liable to it, whenever it rages among adults. It is with a peculiar view to patients of the former class that the following directions are given, the bark being usually a specific for older children and grown people; to whom, however, it is generally proper first to administer a vomit, and one or more doses of physic, as well as sometimes to assist the bark by the addition of aromatics, or steel.—The small-pox, whether taken naturally, or by inoculation, as well as other acute complaints, has sometimes removed obstinate autumnal, and chronical agues.

In a state of infancy, the ague is often owing to, or connected with a foul state of the bowels and obstruction of the biliary ducts, and is frequently accompanied with worms, or such a state of the alimentary canal as affords a proper nidus for them.

The tertian, or more common ague, at this age generally yields to purges of the pulv. è scammon. c. calomelane, or calomel and rhubarb, given on the days between the fits, and

small doses of the pulvis antimon. on the return of the fever. Should this fail, a vomit should be administered an hour or two before the next cold fit is expected, if the powder should not already have had that effect.—A linen waistcoat with fine powder of bark quilted within it, may be worn by infants next their skin. But a more expeditious remedy is a large poultice of Peruvian bark, put between thin linen, and applied warm to the region of the stomach, and renewed through the day as often as it may get cool.*

In older children, the common saline draught, taken once in six or eight hours, will frequently succeed; as will warm bitters, and medicines that promote and keep up perspiration. Crude salt ammoniac also in the dose of ten or twelve grains, for children of five or six years of age, has sometimes cured this troublesome complaint; but may not be proper for delicate constitutions. Myrrhe is a better remedy for such, given from four to eight grains, before, or during the cold-fit, and as much cream of tartar, every two or three hours, during the fever. Pepper, and likewise alum are common quack remedies, and may be frequently given with success at this age; the former from five to ten grains, the

* See *Rosenstein* on the diseases of children; also *Med. Observ. and Inq.* vol. 2. p. 255.

latter from three to five, joined with the like quantity of nutmeg, three or four times a day in the absence of the fever. Another good remedy is flowers of brimstone, given in the quantity of a table spoonful in a glass of brandy, before or during the cold-fit; this is a proper dose for adults, but I have never administered this medicine to children.—These remedies are supposed to be beneficial by producing a different action of the parts.

Amongst popular remedies,* is a tea-spoonful of white resin in fine powder, mixed with the like quantity of pounded loaf-sugar, taken a little before the cold-fit, and repeated afterwards night and morning: this I have found successful even where large doses of the bark have failed. Bracelets of mustard-seed and garlic have likewise been applied to the wrists and ankles, and upon the testimony of Dr. G. FORDYCE with good effect. Such kind of remedies for this disease are numberless; I shall, however mention another, which, though as anile as any, seems to have been very often successful, (as I have been informed by the late Dr. HUCK SAUNDERS, as well as others;) and is nothing more than the spider's web, rolled loosely up to the size of a

* The occasional obstinacy of this complaint is offered as the apology for such kind of prescriptions.

child's marble, and washed down with a little warm wine and water, or chamomile tea, before the cold fit is expected: the child should then be put into a warm bed, and perspiration be encouraged. This may be done, amongst other means, by fomentations to the pit of the stomach. A piece of bread, hot from the oven, and sprinkled with camphorated spirit, is not a contemptible one, in this and other complaints, where a speedy perspiration is wished for.

I shall close the list of remedies with the following from Dr. KIRKPATRICK, which is a very good one for patients no otherwise averse from the bark, than that the stomach will not bear it in large doses.

Take of fresh saffrafras bark, Virginia snake-root, roch-alum, nutmeg, calcined antimony, and salt of wormwood, of each one dram: to these, well rubbed together into a fine powder, add the weight of the whole of the best Peruvian bark; then add three or four drops of the chemical oil of mint, and with syrup of saffron make all into the consistence of an electuary. This is to be divided into twenty-four doses, one of which may be taken by children of eight or ten years of age, every four or six hours, while the patient is awake. To make this or any other preparation of the bark sit easy on the stomach, the patient

should first eat a bit of bread, or other light food, with which it may mix, instead of being received into an empty stomach, whereby it frequently nauseates.

GENERAL OBSERVATIONS *on* COUGHS.

PREVIOUSLY to treating of the whooping, and what I have termed the spasmodic cough, it may not be unwelcome to students in medicine, that I should premise some slight observations on coughs in general; a complaint in children that we are often consulted for. It is, indeed, always of importance to be able to make proper distinctions in this affection, as it accompanies divers complaints, especially in infancy; and is sometimes a very harmless attendant, while at others, it is of the greatest magnitude, and calls for its appropriate treatment from the beginning. My remarks here, however, will need only to be very brief.

From what has been said in different parts of this work, it will be very evident, that a cough is not always to be considered as the original complaint, like the whooping-cough, any more than a direct consequence of a cold, or of specific pulmonary affection, as in the measles. Where it may happen to be so, enough, it is

presumed, has been said under the head of fevers; and the hooping and spasmodic coughs will be presently treated of distinctly. The intention here is principally to remind the reader, that a cough often attends teething, and some bowel complaints, or a foul state of the stomach, as well as a common cold, and inflammatory and other fevers, (which, however, are often suspected whenever children are attacked with a cough;) and is a recurring symptom in many delicate habits. Very slight occasions are oftentimes sufficient to excite it in such children, whether from a frosty or damp air, or from any little illness that has reduced the strength, and particularly if the child be of a scrofulous habit. Every confirmed glandular affection will, indeed, be attended with a cough, which in that case is of the worst kind, as it is attended with fever, loss of strength and manifest disease; in the last stages of which the cough becomes permanent.

In every case, therefore, the cause and attendant symptoms, rather than the mere cough, should be carefully attended to, and especially if the child be costive, or the bowels foul, and their discharges of an unusually offensive smell. Purgings medicines, it has been before said, are in this case the proper remedies, which should

frequently be joined with saponaceous ingredients, such as the aqua kali, natron ppt. or spong. ust. nothing being more common than an obstinate and teasing cough, especially during the night, when the bowels have been long in a costive state, and the alvine discharges are very fetid, or of a stiff and clayey consistence.

Though I have said, my intention has been rather to discriminate the causes, than to direct the precise remedies for coughs; yet it may not be amiss to give a few suitable prescriptions for coughs attendant upon common colds, especially after the period of early infancy. And to this I am inclined, on account of the more ordinary remedies met with in books being usually of the oleagenous kind, and ill suited to the state of stomach in young people, and, indeed, not always well adapted to adults.

R. Mucil. gum. arab. ʒijj

Mellis acetati ʒi ʒ

Aq. distilatæ ʒx

Syr. papav. albi ʒij ft mistura.

addatur P. R. N. spir. æther. nitrosi gtt. xij.

R. Pulv. è tragacanth. comp. ʒj

Syrupi Limonis ʒ ʒ

Papaveris albi

vel mororum ʒi ʒ

Spir. ætheris nitrosi ʒij

Misc, ft. Linctus.

R. Mellis acetati ℥j

Syrup. papav. albi

————mori āā ʒvj

Tinct. Tolutan. gtt. xx misce.

Fiat Linctus.

PERTUSSIS, or HOOPING-COUGH.

THIS complaint, called also tussis ferina, is a disease unknown, probably, to the old writers; and is supposed to have been conveyed into *Europe* from *Africa*, or the *East-Indies*: the *Greek* and *Arabian* physicians make no mention of it, and indeed it has not been well understood in any part of *Europe*, till of late years. Hence, probably, its great fatality in *Stockholm*, where from the year 1749 to 1764, inclusive, 43,393 children are reported to have sunk under it. Even WILLIS supposed its seat to be in the breast, but HARVEY makes it a disease of the stomach, and ASTRUC an inflammation of the larynx and pharynx, produced by an original affection of the former, from indigestion. He seems to have been one of the first that discarded the use of oily and pectoral medicines, (which, indeed, some practitioners have since been weak,

enough to revive;) though he advised bleeding too indiscriminately.*

This disorder furnishes another proof of the observation made on the impropriety of submitting the complaints of children to improper hands—the care of old women, and frequent change of air, being all that this disorder is, by some people, thought to require:† but perhaps the maxim was never worse applied. There is, indeed, a milder sort of hooping-cough, as there is of every disease, which calls for very little medicinal assistance; and it is always in such cases, that matrons and old nurses acquire their credit. But there is no complaint of children with which I am at all acquainted, in which medicine is at times more evidently serviceable, than a bad hooping-cough.

This disease is certainly highly infectious, and one of those that never appears a second time. It may attack at any age, adults being liable to

* See his *Diseases of Infants*.

† If this be true to any degree, so that children, with very little assistance from medicine, have seemed to get rid of obstinate hooping-coughs, by removing from one air to another; it is not improbable, that this may have arisen as much from getting out of infected beds and apartments, which might keep up the contagion, through the medium of respiration, as from any specific influence of the air, resulting merely from a change.

its influence, as well as younger people ; but it more commonly takes place between the age of four months and twelve years. It often begins as a common cough, and is attended with the usual symptoms of having taken cold, but in its progress soon becomes more severe ; though the longer it may be before it plainly discovers itself, by the *hoop*, the more favourable it is likely to be. A flux of rheum frequently comes from the mouth, nose, and eyes, and the food is thrown up, together with a viscid phlegm, (often in great quantities) in the coughing fits ; between which the child generally appears to be perfectly well, and eats its food very heartily. These are the more common symptoms, but when the disease is violent, and has continued for some time, they become greatly aggravated, especially in the night, and the child will seem almost strangled in each fit, the face and neck becoming perfectly livid, till by a violent effort, attended with a hoop, it recovers its breath ; the blood will likewise sometimes rush from the nose and mouth ; and I have in two or three instances seen the eyelids as black as if injured by a violent blow, and remain so as long as the cough has continued severe. When taken in time, however, and properly treated, the whooping-cough is rarely fatal, and scarcely ever but to young in-

fants, and never as long as the patient is free from fever, or other disease.

It has been thought by some practitioners, that little more than emetics, and gentle laxatives are required, in which view it was, that the late Dr. JAMES recommended his powder; though a late writer* has, very imprudently, wished to discard the former altogether. But the fact is, that many other means are equally useful, and not unfrequently indispensibly necessary, unless we should suffer the patient to be strangled in a fit of coughing, or fall into a decline, from the injury which the lungs must endure by a frequent repetition of such violence.

This must be exceedingly apparent from the above history of the disease, the various symptoms of which, certainly demand, a considerable diversity in the treatment. The more important ones are, the state of inflammation, sometimes inducing peripneumony: the quantity and viscosity of the phlegm; and the spasmodic affection, and danger of suffocation; together with the exhausted state into which the patient may be reduced by the long continuance of the disease. If the breathing therefore be difficult, a blister is indicated, which, if the child is not very young, may be kept open for

* Mr. J. G. Jones.

two or three weeks; or, what is sometimes preferable, the repetition of a small one, once in six or eight days. If the face should be very livid, and swollen, during the fits of coughing; if any vessel give way; or the patient be plethoric, and more than two or three years old, or should be hot between the paroxysms; a little blood ought to be taken away, and a saline draught be administered, every six or eight hours, and the bowels kept open, till the fever shall disappear. Otherwise, if none of these symptoms attend, bleeding does not seem, in general, to be indicated, nor much purging, but may rather have a tendency to protract the disease, by increasing the spasmodic disposition, and by weakening the patient. On the other hand, stomachic cordials, such as the oil of cloves, and bitter tonics, are often exceedingly useful.

If there be an inclination to vomit, it ought to be encouraged, unless the phlegm be brought up with great ease in almost every fit of coughing, in which case, nature seems able to accomplish the business herself, and it will then oftentimes be sufficient to keep the body open by the mildest laxative medicines. But it very rarely happens, unless in infants at the breast, that some kind of emetic is not necessary in the first stage of the

complaint. The disease, indeed, frequently requires no other medicine ; for such usually keep the body open at the same time, which it ought always to be. For this purpose, perhaps, wine of antimony may be as proper as any thing when it answers the end ; but I have thought it less certain than tartarised antimony, from its not being always of an equal strength. I have, however, been lately in the habit of using it very frequently, and when the proper dose has been ascertained, have thought it operates more mildly than the tartarised antimony, which sometimes proves too far violent for very young infants. Whensoever preferred, however, dissolved in water with the addition of a little sugar it forms a medicine to which children will never make any objection ; and may be given upon an empty stomach, every day, or every other morning, according to the strength of the child, and degree of disease. If the cough should happen to be more violent at any particular time, the emetic should be given a little before the paroxysm is expected. Or perhaps a still better method, at least in some cases, and particularly in very young children, is, to give the tartarised antimony in smaller doses, together with a few grains of magnesia, or prepared oyster-shell powder, (according to the state of the bowels) three

or four times a day, so as to keep the stomach in such an irritable state, as shall secure a gentle puking every time the fits of coughing come on. But in whatever way this medicine be directed, it will prove of no service if it does not excite vomiting, and must therefore be given in a dose suitable to the strength of the stomach, which is exceedingly various, not only at different ages, but in children of the same age, and of the same apparent habit of body. If one preparation of antimony may have any advantage over another, they have all much more over every other emetic I have made use of; the ipecacuanha, and oxymel of squills, being exceedingly unpleasant, and the latter, as far as my experience goes, usually more uncertain than any other emetic.

Such a plan is all that will be necessary in the common whooping-cough; but it has been said, there are many cases which will require other means, and demand all the skill of the experienced physician. The cough, for instance, will sometimes increase not only for days, but for weeks together, and the strangulation be exceedingly alarming. In this case, the lac ammoniaci, but especially asa foetida, frequently proves a sovereign remedy, and though exceedingly nauseous, many children will take it tolerably well for the short time it appears to be absolutely

required; and when they will not, it may be administered by way of clyster, dissolved in a small quantity of penny-royal, or common water. These medicines, however, will be improper in the very advanced stage of the disease, when attended with hectic heat, hemorrhage, or other phthifical symptoms; a caution equally necessary in regard to the bark, which in the absence of these symptoms, and after the stomach and bowels have been well cleansed, is frequently very useful at the latter stage of the disease, when the patient has been exhausted by its long continuance. Upon the same plan with the asa fœtida, camphor and castor are frequently beneficial, and have the advantage of being less nauseous, but I think are proportionably less powerful. I take no notice of tincture of cantharides, though strongly recommended by some writers, because I have had no experience of it myself, and indeed have never found any necessity for trying it. For the like reason, I say nothing of arsenic, lately strongly recommended, by Mr. SIMMONS of *Manchester*.*

It will sometimes be of no small service, to rub the hands, and the soles of the feet, with the spirit ammoniæ comp. several times in the

* See DUNCAN'S *Annals of Medicine*, for 1797.

day; or the spine of the back, and the pit of the stomach, with oil of nutmeg, or oil of amber; but as the smell of the latter is very unpleasant, it may be dispensed with, where the spasms are not exceedingly urgent. But when they are so, this oil is sometimes very useful, particularly when administered internally, and children of three or four years old will take a few drops of it very well, mixed in a spoon with a little Lisbon sugar; from which I have seen as evident advantages, as from any medicine whatever. But frequently, no anti-spasmodic is equal to opium, in this, as well as in other diseases. With this view, a few drops of laudanum, or if a pill be preferred, two or three grains of the pil. à styrace, and to younger children a small tea-spoonful of syrup of white poppies, taken at bed-time, will not only quiet the cough, and remove the strangulation during its operation, and procure the patient some rest, by which the strength will be recruited, but in many cases seems to have a kindly operation on the disease itself. It is in this way, I doubt not, that the cicuta has gained so much reputation, but I believe, it is no otherwise a remedy for it than as an anodyne. From a mistake, however, in this respect, the strong manner in which this medicine has been recommended by Dr. BUTTER,

has certainly done harm ; as I have known people depend solely upon it in very bad cases, to the exclusion of other remedies evidently indicated, which would at least, have shortened the disease. Joined with emetics and other means, as the symptoms may indicate, it is, nevertheless, a valuable medicine. Instead of the ol. succini, the following will often have a good effect, in children of four or five years of age ; acting both as a tonic cordial, and ultimately as a sedative.

R. Olei Caryophil. aromat. Gtt. xxiv

Sacchari purissimi ʒiʒ

Muc. Gum. arab. ʒiij

Simul optimè terantur, addendo gradatim

Aq. Cinnam. ʒiʒ vel ʒij

Aq. distil. ʒiv.

ft. mistura, cujus summatur cochl. j largum tussæ appropinquante, vel statim post tussē.

If obstructions in the lungs be suspected, blisters should be applied, and recourse had to gentle deobstruent medicines ; but at this period, the cure is chiefly to be accomplished by perseverance in cooling laxative medicines, by a vegetable and milk diet, (especially asses milk) pure air, and gentle exercise.

The cough after having disappeared for a week or more, is sometimes found to return with

great violence, especially upon taking cold ; but a gentle purge or two, a vomit, and abstaining from heavy food, generally remove it in a very short time. Should this fail, a grain of asa foetida, taken two, three, or four times a day, according to the age of the child, never fails to check it immediately. If the secutions should be neglected, the cough will oftentimes prove extremely tedious. And in this case I have known the *lichen*, or ash-coloured ground liver-wort prove an excellent remedy. One ounce may be boiled in two pints of water, to one ; or a like decoction of the oak-lungs ; a table spoonful may be given two or three times a day to infants of a year old. These have had an immediate good effect where infants have appeared to be going fast into an hectic state, after the cicuta, ol. succini and cortex peruv. have failed, or the disorder has hung on unpleasantly.

A mode of cure of a very different kind has lately been announced by Dr. STRUVE, of Gortitz, and may be noticed in this place, as worthy, at least, of a trial in obstinate cases, and in a conjunction with other means ; though with a caution to young practitioners, in regard to infants and delicate children.

After prescribing an emetic, the following mixture is directed to be rubbed in every two hours,

in small quantities, about the region of the stomach.

R. Antimon. tartarifati ʒj

Aquæ puræ ʒij

ft. solutio ; cui adde

Tinct. Cantharid. fort. ʒj.

In various instances, the Doctor observes, that a gentle perspiration came on during the night, after the use of this application ; that the violence of the cough immediately abated, and in a short time the symptoms totally disappeared.

The only thing that remains to be spoken of, is the proper diet, which is, indeed, of considerable importance ; and for children even of five or six years of age, ought to be little more than milk and broths. These are easily digested, and will afford them much more good nourishment than any kind of meats, and will sit much lighter on the stomach than puddings, or pastry, the latter of which is exceedingly injurious. The objection made by old nurses against milk, that it breeds phlegm, is utterly founded in a gross mistake that cannot be too frequently controverted. It has, indeed, been sometimes mentioned by a certain class of medical people, but the objection is so truly unphilosophical, and unlike the objections of thinking men, that it scarcely deserves a reply. Should the milk,

however, be found to curdle remarkably soon on the stomach, a little common salt, Castile soap, or testaceous powder, may be added to it occasionally; or asses milk may be substituted for cow's. These light nourishments soon pass out of the stomach, or if brought up by coughing, fifty times in the day, (as I have known them to be) a child of four, or five years old, will immediately take more of them with avidity, and will be better supplied in this way, I mean by taking a tea-cupful at a time, than by making set meals, or taking a large quantity at once. If the child should be thirsty, a little apple-water, toast and water, tamarind-tea, and other thin drinks, will be pleasant and useful. Patients treated in this way, will get through the complaint if not severe, in a very short time; and where it proves violent, a child will struggle through this long disease, without any considerable loss of strength, or will be very soon recruited by a decoction, or cold infusion of the bark, together with gentle exercise, and country air, the best restoratives after every kind of disease.

TUSSIS SPASMODICA.

MUCH akin to the former complaint, is a troublesome cough, properly enough denomi-

nated spāsmodic, or convulsive. In a certain state of the air it is sometimes epidemic, and young children, and even infants in the month, are then attacked by it, as well as adults. The irritation seems to be about the larinx, or a very little lower down, and is exceedingly distressing, at the time of coughing; but the patient, though an infant, seems immediately afterwards to be quiet and comfortable. This cough is not usually attended with fever, nor other ordinary symptoms of a common cold, nor is it to be relieved by the like means; the cough remaining dry and hoarse under the use of pectoral remedies.

Children of two or three years old may be cured by the cicuta, and gentle laxative remedies; but the former being less adapted to infants in the month, such may take a few drops of the syrup of white poppies, three or four times a day, and their bowels be carefully kept open; which means seldom fail of removing the complaint in three or four days—Should the syrup over-much constipate the bowels, or otherwise disagree, BATES's Sp. Sal. ammon. fucinat. may be tried in its stead; which is a good medicine in other dry convulsive coughs, where there is no fever.

I have met with this complaint very frequent-

ly in children from two to four years of age, in some of whom it had been of several weeks standing, and after various remedies for coughs had been made trial of. In every instance, the complaint has been immediately relieved by the cicuta, and in a week or ten days, been usually removed.—The like good effect has attended an infusion of the oak-lungs, after many of the ordinary remedies for coughs have failed; and may very well be administered together with the cicuta, if that should not be soon attended with good effect.

There are, however, some more formidable cases, in which the symptoms are generally aggravated, and children continue longer in a convalescent state. I have also been called to visit some under all the semblance of approaching death, with profuse sweats, rapid and feeble pulse, and laborious respiration; supposed by able physicians to be sinking fast under peripneumonia notha, or the more aggravated symptoms of a true pleuritis.

Although reduced to this state, under the best conducted antiphlogistic plan, yet has a recourse to the cicuta succeeded equally well, giving immediate relief to all the symptoms. But a degree of dyspnoea all along merely spasmodic, having, in some cases, still continued, it has been

found expedient, after a week or ten days, to have recourse to the bark. At the same time, the violence of the cough attended with very copious secretion of phlegm, which young children seldom spit up, has required two or three gentle emetics, which have then not failed having a happy effect; though administered previously to the cicuta, I have known them greatly aggravate the symptoms, probably, by increasing the debility, and disposition to spasm.

As many practitioners, not very conversant with this complaint, under its more aggravated appearances, have been led to consider it as inflammatory, so others, from the continuance and violence of the cough, have expected it to terminate in the whooping-cough, but have been equally mistaken; this being a distinct species of spasm, and never attended with the true hoop.

Mr. Moss speaks of a spasmodic cough, different, he thinks, from any previously described,* and probably an endemic of *Liverpool*; resembling, however, the humoral asthma of adults (he says) more than any other.

It is said to commence a few days after birth, and to continue for several weeks, or sometimes for months; and in either case so commonly proves fatal, especially amongst the lower class of

* An. 1781.

people, that Mr. Moss is at a loss to suggest any appropriate remedy.

If it be truly an endemic, I can, probably, judge but very imperfectly of it; but from many circumstances in the spasmodic cough described in this chapter, it does not seem unlikely, that the cough at *Liverpool* may be of the same kind. What the former might become if very long neglected, or improperly treated; or in what time it might prove fatal, I am not prepared to say, having always soon succeeded in its cure by the means I have recommended; which may, possibly, be worthy of a trial at *Liverpool*, as they will not set aside the little general remedies in use.

SUFFOCATIO STRIDULA.

THE Croup, or acute asthma, is a complaint somewhat similar to the two former; to which, perhaps, children only are liable, called, therefore, asthma infantum spasmodicum, also suffocatio stridula, cynanche trachealis, and esquinancie membranacea.

Though this complaint has for several years infested this country, it has been greatly misunderstood, both by writers and practitioners; there being certainly two species of it, the one

acute, or inflammatory, the other chronical, or spasmodic. These seem to have been confounded by some authors, and one of them, perhaps, not known to others. Neither of them are often found to attack those who have arrived to the age of ten or twelve years, and, according to Dr. MILLAR, the spasmodic chiefly seizes infants newly weaned; and is then the most severe. He is, perhaps, the first person in this country who has written particularly on this species; but Dr. HOME has treated more distinctly on this complex disease, which had, however, been mentioned by some *German* writers, and well described by them long before it was noticed in *Britain*.

Remote causes of this disorder may, possibly, be the lax fibres of children, the abundance of moist humours natural to them, and the vast secretion from the bronchial vessels; and perhaps the change of food from milk, which is easily assimilated, to one requiring more digestion.

The prophylaxis is the same as in most other diseases peculiar to children. If this complaint arise from the laxity of their solids, the quality of their food, and the natural weakness of their organs of digestion, the general means of prevention, as well as of cure, will be readily indicated. Their food should be such as may

be easily digested, and may prove nourishing. A due proportion of milk and broth,* (taken either separately, or mixed) whilst children are very young, or light meats when they become older; good air and exercise, and a careful attention to the state of their bowels.

The proximate CAUSE of this complaint, (at least of the acute croup) is a morbid secretion of a viscid mucus in the trachea, adhering so firmly to its sides as to impede respiration. The quantity and viscosity increasing, gradually lessens the diameter of the part, and if it effect this to a considerable degree, the disease must necessarily prove fatal.

The SYMPTOMS of this complaint are spasmodic, being such as would be produced by any other matter constantly irritating the trachea, and diminishing its diameter. They will therefore very much resemble those of the nervous asthma, but the complaint differs materially from the common spasmodic asthma of adults, in the peculiar, croaking, noise made in respiration, (from whence it has its name) and in the violence of the paroxysms; which, however,

* A diet of milk only, even in adults, when long persisted in, though otherwise proper, will create flatulencies.
BARRY, *On Digestion*.

when the disorder is light, leave no apparent indisposition, save a certain dulness, and a sense of fear, in children capable of expressing it. The fits frequently terminate by sneezing, coughing, or vomiting, and return without any regularity. It is attended with a sharp, and shrill voice, and a flushed countenance, which grows livid during the paroxysms.

Dr. MILLAR, who has written largely on this disease, (I apprehend, as it appears in *Scotland*) divides it into two principal stages; in the latter of which no method of treatment has appeared to him to be effectual, but medicine is never more efficacious, he thinks, than in the first, if the disorder be not combined with some other, and it be taken in time; though the crouping may be very considerable. This I saw remarkably exemplified in the first instance I met with, which was in a little boy of my own, who was nearly cured in two days. The sovereign remedy he directs is *asa foetida*, which should be administered both by the mouth and in clysters, in doses according to the exigency of the complaint; and where no marked inflammation has taken place, may be given very freely; and afterwards the bark, when the spasms remit.

This account of the disease can certainly apply only to the spasmodic, and is not the dis-

order usually known in this city by the term croup, but a mere spasmodic complaint, totally unaccompanied with inflammation; at least is so, whenever *asa foetida* is thus useful in the first instance. And this seems to be further evident, from the recovery of such patients, and the consequent want of proof of the existence of that tough membrane found in those whose bodies have been examined after death; in whom the disease is always of short continuance after the croup, or croaking noise in respiration, has taken place. Whereas, the other kind of croup has sometimes been known to continue for two months, and then has yielded to opium. Instances have likewise been met with of children crouping for two or three days, and being then seized with whooping-cough, which has instantly removed the croup: these circumstances seem to prove that species of croup to be truly spasmodic. I have seen it repeatedly in this form attend the cutting of teeth; being then the mere consequence of irritation, as we see cough and various other symptomatic affections induced at this period. How far Dr. MILLAR may have mistaken what he calls the two stages of the croup, for two very different species of this complaint, has been hinted already. From my own experience, however, which has been con-

siderable, as well as his authority, it seems very proper that a trial should be given to the *asa foetida*, when there is no degree of fever, and the child seems little, or nowise indisposed, in the intervals of the crouping. Emetics likewise will sometimes be found necessary,* as will the *cicuta* and bark; one or other of which must be persevered in, as long as any symptoms of the disease, and particularly the croaking noise, shall remain. And from the success attending this practice, and a proper discrimination of the disease, there may be more room for hope in this cruel disorder, than some practitioners have been induced to think.

But the other species of croup is a most dan-

* In one instance, medicines of this class were given in such uncommonly large doses, (as it was observed in a former edition) that it may not be amiss to notice them here.

From beginning with one grain of *pulv. antimon.* which was several times repeated, the child (under three years of age) took afterwards a drachm, and two drachms of *vin. antimonii*; then *pulv. ipecacuanhæ* ℥ss. grs. xv, and ℥j, to which was added gr. j *antimon. tartarificati*; and at length, gr. x, and afterwards ℥j of *vit. album.* The trial of emetics was then then given up for several days; at the expiration of which he took *oxym. feillæ* ʒiij. with ʒj. *vin. antim.* which succeeded better than any thing, though it puked him only very moderately; but continued to do so for three or four times that he took it.—For remarks on the ineffectness of emetics and purges, see page 24. *Note.*

gerous disorder, being, it has been said, truly inflammatory in the first instance, and is, I believe, always attended with a quick pulse, cough, and laborious breathing very soon after the croaking noise has taken place, with a sensible fulness about the fore part of the throat; although at the time of the attack children often appear in perfect health.

It does not, however, always seem to be an original disease; being sometimes a consequence of bad fevers, especially the febris scarlatina, as well as of some chronical disorders that have reduced the patient's strength, and is then much more dangerous. But the worst kind frequently appears to arise from the same causes as the malignant sore throat, only having its seat lower down, and is therefore more severe. And it has in several instances, accompanied it, as may be known in the early stages of that complaint, by the croaking noise peculiar to the croup; and, I believe, is in such instances generally fatal. It has likewise accompanied the last stage of the putrid thrush, and has then carried off the little sufferer in a few hours.

On this species little more need to be said; the disease being always short, and the treatment very evident. Bleeding is always necessary, if the physician be called at the commencement

of the disease, or stridulous noise; and if the patient be visited too late to endure this evacuation, I believe no hope can remain of his being benefited without it, unless the infant be very young; which, however, in another view, cannot but add to the danger. If the patient be three or four years old, and plethoric, a copious bleeding by the lancet may be the preferable mode; but if much younger, or of a delicate habit, four, six, or even more leeches should be immediately applied to the throat, especially if there be any perceptible fulness of that part, and a blister applied to the nape of the neck. The patient may likewise breathe the vapours of warm water with vinegar in it. After the leeches and blisters have been applied, a vomit should be administered, and the sickness kept up for several hours, by small doses of the antimonial powder; which will generally succeed if had recourse to within six or eight hours of the commencement of the disease. At the close of the complaint, and to prevent a relapse, the bark proves highly serviceable, and will also restore the strength of the patient.

The *French* writers likewise depend much upon emetics, and afterwards lenient purges; and to prevent a return, advise aperitives, stomachics

and tonics, particularly preparations of steel, and natural chalybeate-waters.

In the kingdom of *Ireland*, particularly about *Mullinger*, in the county of *Westmeath*, where there are many lakes, the croup is a very common complaint; and equally inflammatory and dangerous as amongst us. It is likewise apt to return, (though seldom so violently as in the first instance) if the patient ventures abroad too soon and is exposed to the bad air of that quarter. The method of treatment there is somewhat different from ours, blood being immediately drawn from the foot, instead of the throat or arm, and often in a large quantity, the child being placed at the time in a warm-bath; a blister is then applied between the shoulders, and the bowels are kept open, chiefly by clysters. Emetics are not had recourse to, nor indeed any means but the above; the violence of the complaint abating very soon, or the child thought to be past recovery. The complaint is, possibly, not perfectly understood in this quarter, and in the northern parts of that kingdom neither this species, nor the chronical croup is at all known, according to my information.

In *North-America*, a very different mode of treatment has been adopted; calomel being recommended as a most successful remedy, after

bleeding and the application of blisters, (when peripneumonic symptoms attend, and the ordinary remedies of emetics and purges. And Dr. RUSH, of *Philadelphia* is so sanguine in regard to it as to assert, that the bark is scarcely a more certain remedy for intermittents, than calomel, when thus administered, is in this species of Cynanche.

Should this prove to be the case, after repeated fair trials in this country, the public will, indeed, be much indebted to him, and I shall be happy in thus further introducing such a remedy to notice; though I have not myself had an opportunity of putting it to a fair trial, since Dr. RUSH's book came to hand; though I have administered it repeatedly, in slighter affections.

In Dr. FERRIAR's *Medical Histories and Reflections*, vol. iij, there are likewise some very good observations on this disease; which he also has very properly divided into the *acute* and *spurious*. In the former he remarks certain pre-current symptoms whereby this dangerous disease may be foreseen; but I am satisfied, this is not always the case: though much deference is due to his great attention to this sad disorder, and the very considerable experience he has had. The treatment recommended is very agreeable to that I have laid down; but with the addition

of one remark, very worthy of attention, viz. that the venæsection should be very copious, and nearly *ad deliquium*.

Whilst this work was in the press, I have learned, that Dr. JOHN ARCHER, of *Harford* county, *Maryland*, in *America*, has strongly recommended the feneka-root, (*Polygala Serega*, *Linn.*) as an almost infallible remedy in this disease. I shall therefore present the reader with the Doctor's account in his own words, in a letter he wrote to Dr. BARTON, of *Pensylvania* College.

“ I have in a great many instances found a decoction of the *Seneka* the most powerful medicine in the cure of this disease, and I am happy to tell you that I believe it may be depended on. I make a strong decoction of the root in the following manner, viz. half an ounce of the feneka, in coarse powder is boiled in eight ounces of water, down to four. Of this I give a tea-spoonful every half hour, or hour, as the urgency of the symptoms may require ; and at intervals a few drops, to keep up the stimulus, until it either acts as an emetic or cathartic. I then repeat it, in smaller quantities, so as to preserve the stimulus of the feneka constantly in the mouth and throat.

“ If the disease be more advanced, and the

breathing more difficult, with a peculiar harsh or shrill sound, like air forcibly drawn through a small aperture ; attended with a retraction of the upper part of the abdomen under the cartilages of the ribs ; I then give calomel freely and frequently, and rub mercurial ointment on the throat and contiguous parts, so as to affect the glands of the throat and mouth, as quickly as possible. This I do that the mercury may co-operate with the action or stimulus of the feneka, and thereby hasten the separation of the membranous substance formed in the trachea.

“ In this method I have succeeded in the cure of the croup, even beyond my most sanguine expectations.”

Having had no opportunity of making trial of the feneka in this disease (though I have lately found it very useful in the latter stage of *pleurisy*) I have only to remark upon it, that the intention seems to be very similar to the repeated doses of emetic tartar that have been recommended in this chapter ; while the exhibition of calomel, and mercurial ointment accord with the application of blisters. Which of these means may be the more successful, or how far the application of leeches, at the commencement of the disease, may be safely dispensed with, actual experiment only can determine.

I have examined the trachea after death in only three patients, in two of which I found the precise appearances described by Dr. MILLAR and others; the wind-pipe being lined with a tough viscid coat, so as mechanically to close up the passage. The third instance was in an infant who died suddenly of the hydrocephalus, a few days after appearing to be recovered from the croup.

RACHITIS, or RICKETS.

THIS is a late disorder in *Europe*: ASTRUC observes that *England* is said to be the part in which it first made its appearance, and that it was then described by GLISSON and MAYOW; but he thinks it probable, that it appeared at the same season over all *Europe*, through the coldness of the weather. It was named Rachitis, from the *Greek*, implying that the spina dorsi is particularly affected by it;* though it rarely attacks the spine till the disorder is far advanced.

* From this circumstance, it has been supposed to have been known in the time of *Hippocrates*; but his remark (*Aphor.* § 3. 26.) is certainly too concise to establish the point; as it is simply observed, that among other complaints, infants after the period of dentition, are liable to καρδια, πονδύλε του κατὰ τὰ ἰνία ἐισω ὥσπερ. — In *Monf. Le Febvre de Villebrune's* Greek edition of the *Aphorisms*, there are, however, some

It was first noticed in the western parts of *England*,* about the year 1628, † and is said to have taken place upon the increase of manufactures, when people left the villages and husbandry to settle in large manufacturing towns; where they wanted that exercise, and pure air, which they had enjoyed in their former situation and employments.

It may, therefore, frequently arise from unhealthy parents, especially from mothers who pass too sedentary a life in a bad air, and feed upon a weak and watery diet; from children's food being weak, watery, or too viscid to be properly digested; but above all, perhaps, from bad nursing, and children being left wet, dirty, or exposed to a cold moist air, ‡ without sufficient covering; from want of proper exercise, and

observations tending to evince, that this disease is of an older date, by some centuries, than it has been generally imagined; and this, it should seem from the nature of the disease, is not unlikely.

* See GLISSON.

† PRIMEROSE.

‡ From the experiments lately made by Drs. *Beddoes*, *Withering*, and others, upon atmospheric air, and its relation to diseases, it cannot be at all surprizing, that this disorder, particularly, should often be owing to foul air, in which, what has been lately termed the azote, is too predominant. And it is worthy of remark, that this complaint is scarcely known in very hot climates.

from close and crowded apartments. On this account, children of poor people are particularly liable to this disorder: parents, and governors of work-houses ought therefore carefully to guard against the last mentioned causes.—Or lastly, from the habit of body being reduced by the long continuance of almost any of the complaints hitherto considered. From these sources arise what may be termed its proximate causes; such are, a load of undigested juices in the stomach, intestines, and all the first-passages: an universal viscidiness in the extreme vessels, especially of the joints; a corrosive acrimony from a too languid circulation, and a general obstruction in the fibres of the muscles.

The usual SYMPTOMS of rickets are soft flesh; bloated, or a very florid countenance; weakness; dislike to motion; with enlargement of the belly, head, and joints. The wrists and ankles enlarge first, afterwards the back, and breast-bones; and, indeed, all the bones swell and become soft, especially the more spongy ones. The pulse is quick, and feeble, and the appetite and digestion usually bad. Teething is commonly late, though not frequently difficult, but the teeth often rot early, and fall out. Great acuteness of mind has been observed in this, and some other chronical complaint. It seldom attacks

children before they are six months old, or above two years.

As it appears to arise from a general weakness and relaxation,* the indications of CURE are to brace and strengthen the solids, and to promote digestion, and the formation of good chyle. These ends will be promoted by wholesome, and dry food, suited to the age; good bread, or biscuit; and roasted meats, rather than boiled; with a little red Port wine. Should the child be too young to eat flesh meats, its diet ought to be chiefly of broths, milk, rice, millet, pearl-barley, salep, and semolina, with spices, if it be not inclined to be feverish.—This, however, is sometimes the case in older children, though, perhaps, too rarely suspected, and requires in that state of the disease a very opposite treatment; even small bleedings being then found serviceable.—The child must above all have good nursing, and especially exercise and air, without being kept very hot or very cold: unless a strict attention be paid to these, medicine

* *Monsieur Bonhomme* of *Paris*, has formed a different and strange theory of the nature of this disease; and recommends very strongly the internal exhibition of phosphate of lime and phosphate of soda, together with an external washing with an alkaline liquid made by dissolving half an ounce of common pot-ash, or sal tartari, in a pound of very pure spring water.

can be of but little service. If the child be too young to exercise itself by walking and such like, the nurse, besides affording it every exercise it can bear, may induce the infant to exert itself to no small advantage, by the following easy means. She has only to dash a few drops of water suddenly in its face several times a day, in the manner often done to recover people from a swoon, though less violently. This will oblige the infant to put almost every muscle into action, by which the blood will be forced through the minute vessels, and many of the advantages of exercise produced, and in a more powerful manner. To the same end, linen cloths wetted with cold water, with the addition of a little spirit of any kind, may be applied to the arms and legs, or to the spine every time the child is dressed or undressed, especially if the bones of these parts are become enlarged or distorted by the disease. The parts should afterwards be rubbed very dry with a piece of warm flannel.

If the child be of a gross habit, the eighth part, or a quarter of a grain, of ipecacuanha, taken once or twice a day; gentle pukes, and very brisk purges, especially of the pulv. è scammonio cum calomel. prove of use. The tinct. aloës comp. is also a good medicine, a few drops once or more in a day, (as may suit the state of

the bowels) taken on a bit of sugar, or otherwise. In such habits, all foundation of a cure must be laid in reducing the belly to its proper size, and in strengthening the stomach. If rather delicate, the cold-bath is often of more service than any thing else: but this should not be entered upon in winter; nor without previous purging. Frictions afterwards with flannel and aromatic powders, or the fumes of frankincense, mastic or amber, especially on the back and belly, will further tend to strengthen the habit. Besides such means, the cold infusion of bark, and other bitters, especially columba; or small doses flor. martial. tincturæ myrrhæ, or the vinum ferri, have often the best effect. Dr. TEMPLE prefers the following form above any other.

R. Rubig. ferri gr. iv

Pulv. Rhei gr. iij

Sacch. albi gr. x.

misce. ft. pulvis, mane et vesperi sumendus quotidie.

The rhubarb should be increased or diminished, as may be necessary, two stools a day, it is said, being fully sufficient.—The following is likewise from him.

R. Zinci calcinat. gr. ij

Test. ostreor. ppt.

Sacch. alb. āā ʒj

Pulv. aromat. gr. xij
 misce et divid. in chart. vi. quarum capiat
 unam nocte et mane quotidie. The rubigo ferri
 and the zinc are to be gradually increased.

It has been before remarked, that under every plan, a good diet, air, and exercise, especially riding on horse-back, are of the utmost consequence; which if duly persevered in, and the state of the stomach and bowels properly attended to, will often effect wonders. A cure therefore should not be despaired of under any circumstances, provided the internal and vital parts are not diseased. Besides, this is one of those chronic complaints which seem to be gotten the better of by time, and like the following one, wears itself out, as it were; and to which the above mentioned means will greatly contribute—*Sæpe Pertinacia Juvantis, Malum Corporis vincit. (Celsus.)*

SCROFULA.

THIS is primarily a glandular disease, though in its progress it attacks the adipose membrane, the eyes, the muscles, tendons, and even the bones themselves, especially the joints.* Such

* From this propensity to spread, the disorder is said to have taken its name. “*Strumæ, vel scrofulæ, sic dicuntur, quia frequenter in scrofis, id est, suis, in collo fiunt; vel*

at least has been the general opinion, though from later investigations there is reason to imagine that it originates in the cellular membrane. It seldom makes its appearance before two years of age, nor later than ten or twelve, (unless it be in regard to affections of the eyes,) though there are more exceptions in respect to the latter period; and it then often proves fatal, by falling on the larger joints, the lungs, or other noble part. It is frequently observed to follow other disorders, particularly the small-pox, whether taken naturally or from inoculation; also the hooping-cough, measles, teething, rickets, and many other disorders already mentioned. Hence, the nature of this disease is better understood, as it so often falls upon weak and tender habits, either originally of a lax fibre, or worn out by previous diseases; or is gradually brought on by a heavy, indigestible, and bad diet; or a low, wet, and unhealthy situation. It is, however, sometimes found to be hereditary, but will very frequently lie dormant for two or three generations, (resisted sometimes by inter-

à multiplici partu, quoniam sicut fues multos edunt partus, sic in scrofulis ex una postundùm fiunt plures." (*Tractatus de Morbis Puerorum. Amstelodami, 1760.*) The *Struma* is, nevertheless, a complaint as different from *Scrofula*, as it is from the *Broncocele*, and is chiefly *endemic*.

marriage in a healthy family) and afterwards appear with redoubled violence ; as well as affect the greater part of a family very much, whilst the rest shall be entirely free from it. It is often attended, or rather preceded, by a peculiar look about the eyes, which are generally large, and a thickness of the upper lip ; and sometimes proves a source of ill-health through life, but is not usually fatal in the first instance. Long before the external glands become affected, especially in young subjects, the belly is sometimes observed to be hard and enlarged ; and after death, the mesenteric glands, the lungs, and even the pancreas have been found diseased.

Though this is always a very unpleasant complaint, and frequently does not admit of so much relief by medicines as many other disorders, yet it oftentimes disappears at the time of puberty, (and sometimes sooner) especially in females ; but whether this be owing to the increased strength of the solids, or to other changes in the habit, naturally happening at that period, is not an inquiry proper for this place. On the other hand, after disappearing for several years, during which perfect health has been enjoyed, the humour has, unexpectedly, fallen upon some internal glandular part, frequently the mesentery, occasioning various pains and

complaints, often attributed to other causes, and has undermined the constitution; producing ultimately pulmonary consumption, or a fatal marasmus.

Although I thought it very necessary to mention this disease amongst others to which the state of childhood is liable, I am sensible how difficult it would be to point out any thing like a general, adequate remedy. At its first appearance, however, bitter, or mercurial purges, are sometimes of use, as are also antimonial vomits; and frequently burnt-sponge, and saponaceous medicines, warmed with spices, and continued for a length of time; though it should be observed, that this disorder sometimes falls on habits of a somewhat plethoric temperament, and may for a while, demand the interposition of certain antiphlogistic remedies. But when the disease is confirmed, lime-water, and decoctions of the woods, together with crude antimony, bark, and steel, with wine, and a generous diet, are, I believe, most to be depended upon as internal remedies; from some of which, I have seen no inconsiderable cures effected. But in this, as in other chronical complaints, good air and exercise are of the greatest importance. Indeed, the advantage of exercise in this disease is so great, that I wish to lay a very great stress

on it. But then it must be daily had recourse to, and, by degrees, be so considerbale, as to render the patient every night sensibly fatigued. Thus, I have known riding behind a carriage, almost without the aid of any medicine, entirely remove the complaint.

When there are external tumours, I am satisfied that the opinion I have already given to the public, in a larger tract on this complaint,* is both rational and safe; and that whenever they are at all disposed to come forward, and not seated on improper parts, they ought to be brought to as speedy a suppuration as is possible. To this end, an epithem of honey, flour and yelk of egg should be applied twice a day, and the parts be electrified. The scrofulous virus when thrown on the surface, so far resembles the cancerous, according to the description of the late ingenious Mr. HUNTER, that it is inclined to spread to a considerable extent; but as tumours of the former class will bear rougher treatment than the latter, I am confident that much benefit may arise from the use of external stimulants, by stopping the progress of the disorder in the neighbouring parts, as well as by invigorating them, and thereby disposing the

* See the author's *Surgical Tracts*.

ulcers to heal. Of this kind, are fumigations of hydrargyrus sulphuratus ruber, and hydrarg. cum sulphure. Also light frictions with mercury, so as to make it pass freely through the lymphatics of the distempered parts, without affecting the system, have in a course of time been beneficial, and deserve to be brought into more general practice than they have hitherto been.

Under such a plan, it will be very necessary that the body be kept open; and to this end, one drachm, or more, of the sal cathartic. may be dissolved in a pint of water, and taken every day as common drink. This quantity of salt will give very little taste to the water, and, in some instances, has alone had a good effect in this dreadful complaint, especially in stronger children and such as are otherwise healthy. On the other hand, children of a delicate and spare habit are more likely to be benefited by the tonic remedies before mentioned, and such as warm and invigorate the system; of which class one lately recommended in *France* has been found exceedingly useful, and of which I shall here subjoin the form in which I have generally made use of it.

R. Ammoniaë ppt. ʒij.

Rad. Gentian. incis. ʒj.

Affunde Spir. Vini Gallici ℥ xij

Fiat Tinctura.

Sumat æger cochl. infantum ad cochleare largum ex aquæ puræ q. f. ter, quaterve in die.

I have had further reason to be confirmed in the above opinion respecting stimuli, from observations communicated to me by Mr. PARTINGTON, who since the hints I threw out in the afore-mentioned work, has made use of electricity with very good effects, in these, as well as other cold tumours and ulcers I had mentioned; which have all healed very kindly, in consequence of this stimulus to the parts. When scrofulous ulcers have been healed, and only some small tumours remain, I have experienced very good effects from the external use of as strong a solution of camphor in oil of almonds as can be made, which has dispersed them very soon; and it has been found a very successful remedy, in the cure of the incipient bronchocele, though enlarged to the size of a turkey's egg; and requires only to be very well rubbed into the parts, three times a day. The patient should at the same time take a drachm or two of the tartarised natron every morning.

The following is strongly recommended by Dr. TEMPLE.

℞. Terræ ponderos. salit. gr. x

Aq. menthæ sativæ ℥ i ℥

misce ft. haustus, ter quotidie sumendus; et sensim augeatur quantitas terræ ponderosæ ad guttus xx.

Tobacco has also been lately very strongly recommended, in a treatise written by Dr. C. W. HUPELAND of Jena, author of a *Treatise on the Art of prolonging Life*.

An obvious discrimination should be made in regard to tumours about the neck; since many of them are of a harmless nature, or even salutary, the consequence of a slight feverish disposition, or of some little cold from a sudden stroke of air on the neck. These, it is well known, rise suddenly, become painful, and increasing daily in size, either very soon put on the usual appearance of suppuration, or begin to subside; and whether they break or not, are no indication of any thing materially wrong in the habit. On the contrary, scrofulous tumours always rise slowly, unless in very young infants, and after the small-pox; often continue a long time at a stand, and sometimes are not only months, but even some years before they suppurate; and then with very little pain, or true inflammation. For such, particularly when very large as well as indolent, embracing a large part of the neck; the white lily root,

with an equal quantity of bread, made into a poultice with milk, has been followed, at least, with a surprizingly good effect, the tumour subsiding entirely in the course of a few weeks.

I shall only add further on the head of scrofula, what is very well known, that sea-bathing alone, sometimes effects a perfect cure. Should the child therefore have several scrofulous tumours, or the habit be conceived to be much affected, trial should be made of the sea, in whatever manner it may be determined the tumours shall be treated, if not dispersed by sea-bathing, as they frequently are.

ISCHURIA VESICALIS E MUCO.

BY this term is here intended an affection of the prostate glands, or the coats of the bladder; though the same symptoms may also arise from the ureters or kidneys, whether owing to a stone or other stimulus.

It sometimes appears during dentition, and other inflammatory affections, and will then call for cooling remedies: it generally disappears when the teeth have made their way through the gums, and the fever subsides. Even in more advanced childhood, there is nothing like fever or other precise marks of disease, though,

it may be said, this disorder more commonly attacks children of a tender and delicate habit.

It is attended with frequent inclination to void the urine, and with more or less pain in its excretion, or more commonly, I think, before it begins to come away. The urine is very foul, is loaded with a very ropy mucus, and sometimes comes away discoloured with blood, and at others, small coagula fall to the bottom. This disorder, indeed, puts on every appearance of the like disease common in adults, especially old men, but is usually much slighter, and therefore more easily and speedily cured; for children being more irritable, the urinary passages are over stimulated by causes that would not affect adult persons.

The appearance is, nevertheless alarming, as it may, possibly, arise from a morbid affection of the prostate gland, or the bladder, and must then be a serious complaint; or it may be owing, it has been observed, to a stone in any of the urinary passages, in which case a cure cannot be effected as long as the stone remains. Fortunately, however, this is not a frequent cause in early childhood, and is not the case here intended.

The disorder sometimes yields in two or three weeks to mere diluent, and demulcent

medicines, such as the lac amygdal. with syrup. alth. barley-water and gum arabic, spermaceti, and such like; and it is probable, in such instances, might in a short time disappear of itself.

In other instances more powerful means are required, which, either by creating a different stimulus, change the action of the parts affected, or, by their restraining, prevent that secretion which has been the cause of the irritation.

The aqua calcis, aq. kali, balsamum copaibæ, or decoct. corticis, seem to be the properest remedies in the absence of fever. From three to ten drops of the aq. kali, or balsam. copaibæ, according to the age of the child, will be a proper dose, and may be taken three or four times a day, as the urgency of the complaint may require.

After appearances of being perfectly well, the urine, in some instances, has become as turbid and mucous as at first, and the former irritation returned. In one such case, the complaint seemed to yield to an infusion of the golden-rod, of which two or three table spoonsful were taken three times a day. To this the mother of the child had been advised by one of her friends, upon the complaint returning some time after I had declined my visits.

ISCHURIA RENALIS, *or* SUPPRESSION *of*
URINE.

THIS dangerous disorder is easily distinguished from the ischuria vesicalis, or ordinary suppression of urine, in which the secretion is duly made in the kidneys, and the urine conducted to the bladder; but being detained there, the accumulation is readily discovered both by the pain and tumour in the regio pubis. In the ischuria renalis, on the other hand, the urine is not secreted at all: but the superabundance of watery fluid is retained in the blood.

This disorder, I believe, is more common in adults, especially elderly people, than in childhood, and is a true palsy of the kidneys. In such instances, if the secretion be not restored in about twenty-four hours, the suppression has usually proved fatal very soon; though it is not commonly preceded by any considerable derangement of the general health.

In these respects it corresponds with the ischuria of infants; for the first, and a very accurate account of which dangerous disorder, we are obliged to Dr. WILLAN, who happened to meet with several instances of it within a short space of time. In each of these, the disease was

introduced by similar symptoms, a slight feverish heat being observed for about a week, accompanied with diarrhœa, and sometimes bilious vomiting. Towards the end of this time the urine was made in small quantity, and in about twenty-four hours the discharge of it entirely ceased, and the patients died unexpectedly, without complaining of pain or any particular uneasiness.

Inflammation of the mesentery is judged to be the source of the first symptoms; and the suspicion has been supported, in one instance, by an examination of the parts after death. A gangrene also, which had taken place, Dr. WILLAN conceived to be the cause of the fatal suppression of urine; but in a subsequent instance, it was found otherwise, the patient being perfectly recovered from the suppression, and apparently restored to health by the application of leeches to the belly, and a blister near to the os sacrum; but the child died about a month afterwards with symptoms of dydrocephalus, distinctly marked.

The above mentioned remedies, with gentle purges, clysters, and cooling diuretics, and the repeated use of the warm bath, are probably, every thing that our art has to offer for the cure of this novel disease in infants; and were its

symptoms more distinctly marked, or formidable in their first appearances, so as to lead to a recourse to it on the earliest approaches of the disorder, the remedies might be oftener successful than they have hitherto been.

THE GRAVEL.

ALTHOUGH we see children of almost every age afflicted with stone in the bladder, and such frequently voiding gravel mixed with their urine; the gravel is, by no means, a common complaint to others. I have, however, been several times consulted for children, under three years of age, who have been so affected.

The disorder, I believe is usually slight at this early age, and merely accidental, sometimes disappearing of itself in a few days, or after taking only a little oil and manna, or other soft laxative, and some of the demulcent medicines recommended for the *ischuria è muco*. In other instances, I have directed a decoction of marsh-mallow and parsley roots, or the infusion of sweet-fennel and wild parsley seeds, sweetened with syrup of marsh-mallows, or honey. A bit of castile soap, also may be dissolved in milk and taken as a breakfast, or supper; or a few drops of *bals. copaibæ*, be administered two or

three times a day, and the body kept open by the kali tartarifatum, or the fal polychrestum.

Should the complaint continue long, and the quantity of gravel increase; as much *Seltzer* water should be drank daily as the age of the child may admit. If it be attended with much pain, the warm-bath would, probably, be useful; but I have never known it so great as to require any kind of opiate.

INCONTINENCE *of* URINE.

THIS is not a very common complaint, I believe, in children, unless combined with the stone in the bladder, and then is not so constant, nor to the degree that is intended here. It is an involuntary flow of the urine, sometimes by day as well as during the night; arising, I apprehend, from a relaxation or other affection of the sphincter of the bladder, as in very old people, but is not attended with manifest fever, nor symptoms of decay. An affection of this kind, in which the urine runs away in the sleep only, is more common; and I have known it continue to the age of fifteen or sixteen years when not properly treated, and afterwards yield to sea-bathing. If, however, it be an original affection, and confined only to the night, (when

every part is more disposed to relaxation) and the child be young, it usually disappears as the child grows up, and thereby acquires strength; but it may be often assisted in the mean time, merely by exercise, living on dry food, dashing the contiguous parts with cold water, and such little means as may tend to impart tone to the sphincter muscle and neck of the bladder, and scrupulously abstaining from drink near the time of going to bed.

The total incontinence generally comes on gradually, and is sometimes attended with excessive gonorrhœa, even in very young children, and is more difficult of cure: so likewise, if the complaint should succeed to other disorders, as the stone, inflammation of the neck of the bladder, or forcible use of the catheter; and especially, if it follow any somniferous disease, or a palsy of any other part of the body.

Tincture of catechu, or of gum kino; the cortex peruv. balsam. copaibæ, and vitriol. album, may be made trial of; but nothing is usually so effectual as repeated blisters applied over the os sacrum; with proper doses of the tinctura cantharidis, given in some soft emulsion. This may be administered in doses of ten or fifteen drops to children from five to ten years of age, and increased to two scruples and a drachm;

which has generally removed the complaint if there has been no morbid affection of the spine, as is sometimes the case. If these means should fail, recourse should be had to sea-bathing.

POLYDIPSIA, *or* EXCESSIVE THIRST.

THE affection here adverted to is not a symptomatic, but idiopathic disease, though it seems to depend, indeed, upon an idiosyncrasy; and is equally incident to children, as to adults. It is, however, so rare a complaint in either, that but little can be said of its true nature, there being but few instances of it, I believe, upon record. Of these, one began at, or soon after birth, and another when the child was about four years and a half old; a short time before it was seized with the natural small-pox. The former is now an adult woman, and mother of eleven children, in whom the disorder still continues in a very extraordinary degree. The latter is yet a child, and from the last accounts, is very lively, and though apparently healthy, drinks every twenty-four hours ten quarts of water, and makes daily twelve of urine, as pale as the water he drinks. Through the day he requires a draught every half hour, and once every hour in the night.

Dr. SIMMONS, I believe, gave to the public the first accounts of polydipsia, as idiopathic, and has been at great pains, in ascertaining the facts. BOERHAAVE, indeed, seems to speak of such a complaint; and ZUINGERUS of immoderate thirst as a very common affection of young children, coming on without fever or any other complaint, unless it be a lassitude of the extremities: says, the appetite continues very good, but the desire for drink so great, that on withholding it, they express vehement displeasure, and are threatened with convulsions, and other nervous disorders. He does not, however, allude to the quantity that such children require, and adds, that in a little time their bellies become tumid; that they are subject to glandular affections, and fall into atrophy. On these accounts, this species of polydipsia seems to have no relation to the cases adduced.

The above mentioned instances of it occurred in *France*; and one has been met with in *Stanground*, near *Peterborough*, in an adult man near fifty-five years old, in whom the affection first took place after an intermittent fever, when he was in his twenty-seventh year. A similar case also presented about three years ago at the *Middlesex* hospital. This was in a child, but the

thirst was not in this instance so great as in the aforementioned ones.

Though I can, indeed, have nothing to offer with any confidence, for the treatment of a disorder which I have never yet seen, and which depends upon a peculiar temperament of the body; yet this rare and curious disease appears worthy of some notice, in a work that is thought to comprehend a more complete account of the disorders of children than has hitherto appeared. A slight record of it will also possess the further advantage of apprising practitioners of there being such a complaint; which it is presumed cannot fail of being acceptable, if any, into whose hands the work may fall, should meet with children who have any evident tendency to it.

How far internal tonical medicines, with the cold-bath and electricity, or attempting to promote insensible perspiration, might tend to a removal of it, upon its first approaches, though I can by no means venture to say; they may, possibly, be worthy of trial. Perhaps the plan lately adopted with success by Dr. ROLLO of *Woolwich* in the *diabetes*,* might likewise be ventured upon. This refers equally to regimen and medicine. Hepatized ammonia makes a chief part of the latter, administered at first in

* *Notes of a Diabetic Case.* 1779.

very small doses. The diet should consist of milk, with lime water, for breakfast and supper, and animal food for dinner, and that long kept, and very fat, without the least vegetable, bread, or other farinaceous substance. Confinement to the house, and rest, are also strictly enjoined. But if none of the above means, nor any other remedies that may be suggested, should pretty soon afford any degree of relief, it is presumed, that no violence should be offered to so peculiar a temperament, lest some worse or real evil should appear in its place.

DIABETES INFANTILIS.

THIS complaint is related by MORETON in his *Phthysiologia*, and is worthy of notice in this place; but it is not an idiopathic disease like the former. He mentions it as not being a common disorder, and terms it a consumption from diabetes; attended with great thirst, as in the aforementioned disease. He speaks of it as the effect of irritation from teething, and as a family disorder, having been fatal to all the male children in one, except the last infant, to whose assistance he was called at the commencement of

the thirst, and increased secretion of urine ; which was sweet as in the diabetes of adults.

This child, therefore, appears to have been saved by the treatment he adopted, but was not entirely free from complaint, as he had rightly foretold, until all the first teeth made their way. In the progress of the complaint, the Doctor remarks, that the diabetes was attended with considerable diarrhœa, under which the infant wasted fast, but without cough. The treatment, in the mean time, consisted in confining the child strictly to a milk diet from the first ; and to allay the excessive thirst, he allowed only milk mixed with the *Islington* chalybeate water. This plan very soon became useful ; but the symptoms recurring with aggravation whenever a tooth was making its way, the Doctor was induced to advise a few grains of rhubarb every morning, and a little dioscoridium at bed-time. These means were persevered in for two years, that is, until the first teething was completed ; after which the child enjoyed perfect health.

THE SEVEN-DAYS-DISEASE, and PECHE-
GUERA of *Spanish South-America*.

I Shall close this part of the work with a brief account of two very extraordinary disor-

ders, which should have been noticed among the earlier complaints of infants, if they had been diseases of this country, or even much known in other parts of *Europe*. As the *seven-days-disorder* has, however, actually made some appearance in this quarter of the globe, and may therefore at some future period, become more common, it may be proper it should be mentioned. The following account is translated from the *French* of Mr. *Le Febure de Villebrune*, who refers to the *Spanish* work of *De Ulloa*, (*Disc.* XI. § § 19 and 20) and *Barrère's Voyage to Guinea*.

§ 19. The disease of seven days of new-born infants is common in both quarters of *America*, and equally dangerous in the high, as in the low parts. A great number of infants die of it, without any symptom antecedent to its accession, leading to a suspicion of it. They are, on the contrary, apparently healthy and robust, when the disorder makes its attack in the form of epilepsy; and few of those who are visited with it are found to recover. Though it has been said, this complaint is not altogether unknown in *Europe*, it is neither so common, nor so dangerous. It is conceived that the best preventive would be to guard infants from being

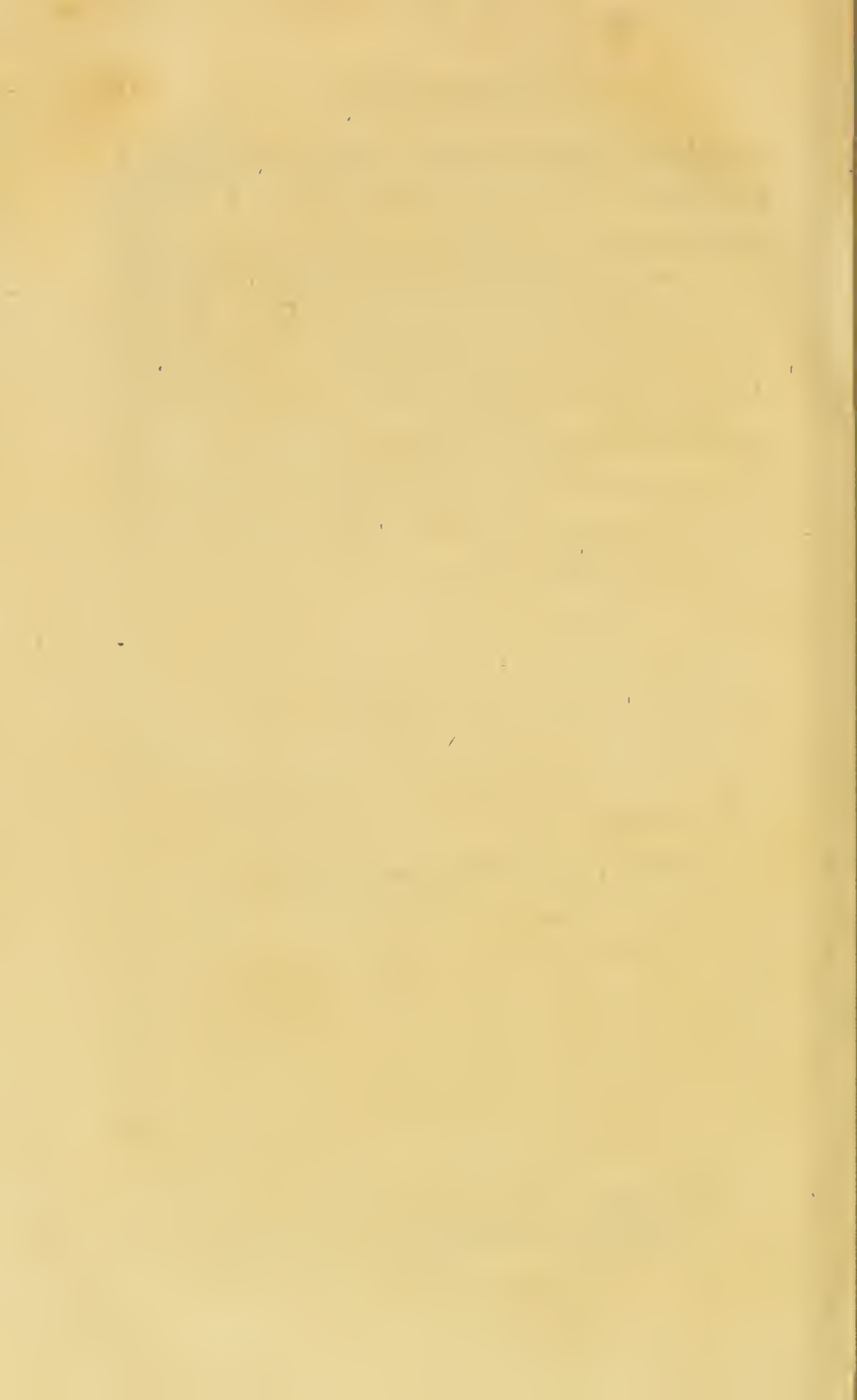
exposed to the wind, till the first seven days are over.

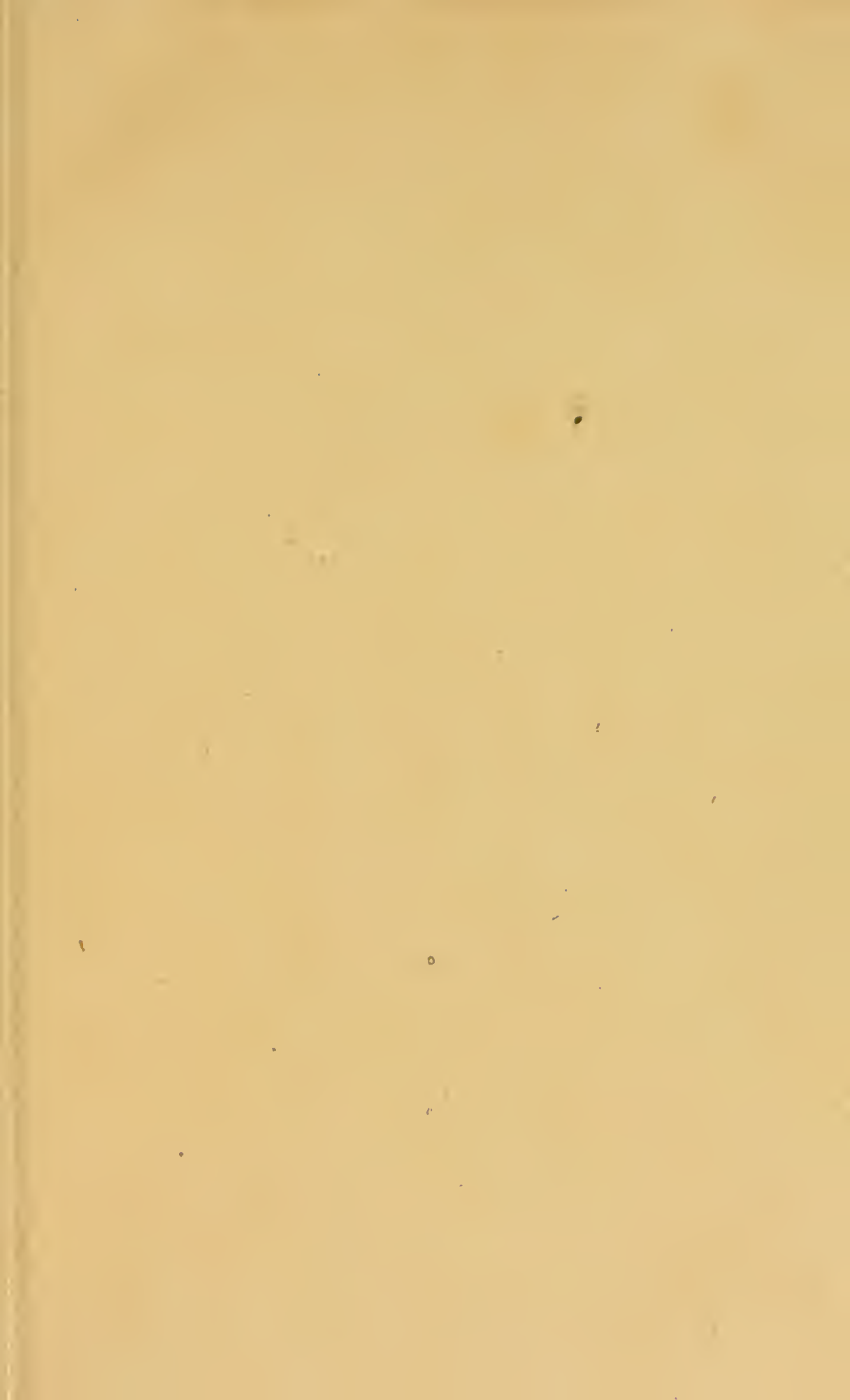
This imperfect account allows of very little comment; but it seems probable, that this disorder may not be very unlike the *Tetanus* of the *West-Indies*: and from the mode of prevention proposed, the disease may be owing to some local custom or circumstance, as Dr. CLARKE has noticed in regard to the latter.

§ 20. But infants at *Guaneavelica* are still liable to another very extraordinary complaint. Having escaped the seven-days-disease, they thrive well until the third or fourth month; they are then seized with cough and pulmonic affections, which they there call *pecheguera*. The complaint goes on increasing without any sensible relief from the medicines made use of; and a swelling taking place, they presently die. The disorder attacks only the *white people*, or children of the *Spaniards*; the *Indians* and the *mongrels* are not subject to it. The way to escape it, is to remove infants from the spot, before they are two months old, and to carry them to more favourable climates, into one of the *Zuebrades*, (or low grounds between the mountains) that are at a little distance. It is imagined, that the cold and intemperature of the climate is the

occasion of infants being so soon seized with this complaint. This may be the case in some degree; but the vitiated habit of body of their parents, and the sulphurous vapours continually arising from the furnaces for the extraction of mercury, may likewise contribute to it. In fact, these vapours are so abundant, that when reunited by means of the cold, they form such a thick cloud in the atmosphere, during the season there called summer, as to cover all the colony. *Notic. American. Disc. II. p. 205. L.*

THE END OF THE FIRST VOLUME.





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